TENDER DOCUMENT

FOR

Earthwork, Repair & Construction of Distribution Network of Nabinagar, Amba, Aurangabad, Madanpur and Gaya Divisions of Right Main Canal, Bihar and its Structures under North Koel Reservoir Project, Jharkhand and Bihar

TENDER NO: WAP/NK/RMC/DISTRIBUTION/BIHAR/2026

Price Schedule (Gaya Part 2 of 2)

WAPCOS

(भारत सरकार का उपक्रम–जल शक्ति मंत्रालय)

(A Government of India Undertaking-Ministry of Jal Shakti)

Preamble to the Price Schedule

1. In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Price Schedule; he will be willing to execute the work. The tender submitted shall be treated as invalid if :-
    - The contractor does not quote percentage above/below/ at per on the total amount of tender or any section/sub head of the tender.
    - The percentage above/below/ at per is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender.
    - The percentage quoted above/below/ at per is different in figures & words on the total amount of tender or any section/sub head of the tender.
2. In case the lowest tendered amount (amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.
3. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.
4. If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Evaluation Committee of the Employer and the lowest contractors those have quoted equal amount of their tenders.
5. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder.
6. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
7. Only percentage rate quoted tenders shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.
8. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs.'

should be written before the figure of rupees and word ‘P’ after the decimal figures, e.g. ‘Rs. 2.15P and in case of words, the word ‘Rupees’ should precede and the word ‘Paisa’ should be written at the end.

9. Contractor should satisfy himself with the total amount of the contract (as worked out in the Price Schedule) for the execution of the complete work.
10. Any error, if any in the Price Schedule, Design, Drawings to be bought in the notice of WAPCOS on or before Pre-BID meeting.

Note:

1. The estimated amounts for items are given in the Estimate.
2. The tenderer has to quote their offer in percentage above/below/ at-par the estimated amount.
3. The percentage rate shall be quoted up to 2 decimals.
4. **The Percentage (%) rate quoted for the contract shall be inclusive of all charges, except GST @18% as indicated in the Price Schedule**. GST as applicable shall be paid on submission of proof and Bill shall be accepted only after Bill is uploaded at GST Portal, subject to receipt of the same by Employer on back to back terms.
5. **The rate for carriage of materials shall be on actual lead at site at the time of execution, if the lead is more than provided in the BOQ, nothing will be paid extra. However, if the lead is less than the BOQ, then a proportionate rate will be deducted.**
6. **The final rates on which the works is to be executed are to be approved by the competent authority based on the Financial Bids submitted by the Bidders. In case any item scheduled/non-scheduled whose rates have not been included in the BOQ, then the rate shall be decided by the competent authority for payment.**
7. The payment will be made as per the actual work done and item wise measurement basis.
8. Rate filled at any other place in the document shall not be considered.
9. Where there is a discrepancy between the words and figures, the lesser of the two will only be taken in to consideration.
10. Where there is an arithmetical discrepancy in the page total as well as grand total, the corrected total by the Employer will govern.
11. The rates quoted shall be for carrying out the work in conformity to the IS Standards and Technical Specifications and other Terms and Conditions set out in the Bid Document
12. All pages in the BOQ should be signed without omission. All corrections/over writing should be properly attested by the Bidder.
13. Change in the Quantities - If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item/items, the rates as in the agreement for the relevant items shall be paid.
14. The Method of measurement of completed work for payment shall be in accordance with the requirement as stated in the individual section of Technical Specifications or as per CPWD Specifications.
15. The contractor shall carry out the site establishment works/temporary works at his own cost. Nothing shall be paid over and above the contract amount.
16. **The rates quoted by the bidder shall be deemed to include all costs related to leads and lifts of disposal of earth work required for the proper execution of the work, as described in the BOQ. If the actual lead and lift is more than provided in the BOQ, nothing will be paid extra and No extra payment shall be made whatsoever admissible on these accounts.**
17. **The rates quoted by the bidder shall be deemed to include all costs related to dewatering (including above nominal) and shoring (including above nominal) that is necessary for the execution of works. No extra payment shall be made whatsoever admissible on these accounts.**

Bihar Distribution Network- Gaya Division

(Total Cost – Rs. 44.74 Crores)

NORTH KOEL RESERVOIR PROJECT

Completion of Balance Works of North Koel Reservoir Project

ESTIMATE REPORT – BALANCE CANALS OFFTAKING FROM ANGRA BRANCH CANAL







WAPCOS LIMITED

(GOVT. OF INDIA UNDERTAKING)

76- C SECTOR-18 INDUSTRIAL AREA,

GURUGRAM-122015 (HARYANA)

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LIST OF STRUCTURES

ANGRA BRANCH CANAL - BALANCE LIST OF STRUCTURES

S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
	PATHRA MR.		
1	SLR/FALL (0.914 M)	1.145	NEW STRUCTURE
2	WELL TYPE CD WORK	1.250	NEW STRUCTURE
3	SLR/FALL (0.914 M)	1.631	NEW STRUCTURE
4	CD WORK	1.750	NEW STRUCTURE
5	SLR BRIDGE	1.951	NEW STRUCTURE
6	CD WORK	2.073	NEW STRUCTURE
7	SLR BRIDGE	2.926	NEW STRUCTURE
8	FALL (1.067 M)	3.292	NEW STRUCTURE
9	SLR BRIDGE	3.810	NEW STRUCTURE
	DABUR MR.		
1	SLR BRIDGE	0.884	NEW STRUCTURE
2	FALL (1.220 M) NEW	2.250	NEW STRUCTURE
3	SLR BRIDGE	2.682	NEW STRUCTURE
4	CD WORK	2.774	NEW STRUCTURE
5	SLR BRIDGE	3.078	NEW STRUCTURE
6	SLR BRIDGE	3.475	NEW STRUCTURE
	SADOPUR MR.		
1	CD WORK (WELL TYPE)	0.150	NEW STRUCTURE
2	SLR BRIDGE	0.366	NEW STRUCTURE
3	CD WORK	0.381	NEW STRUCTURE
4	SLR BRIDGE	0.930	NEW STRUCTURE
5	FALL (0.762 M) NEW	1.350	NEW STRUCTURE
6	CD WORK	1.600	NEW STRUCTURE
7	FALL (0.762 M)	1.649	NEW STRUCTURE
8	SLR BRIDGE	1.844	NEW STRUCTURE

S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
DHARAMPUR SUB DY. (ANGRA BRANCH CANAL)			
1	SLR BRIDGE	0.274	REPAIR
2	DLR BRIDGE	0.740	REPAIR
3	C.D. WORKS	1.900	NEW STRUCTURE
4	SLR BRIDGE	2.480	REPAIR
5	C.D. WORKS	3.400	NEW STRUCTURE
6	FALL (1.372 M)	3.650	NEW STRUCTURE
7	C.D. WORKS	4.250	NEW STRUCTURE
8	SLR BRIDGE	4.300	NEW STRUCTURE
9	C.D. WORKS	5.150	NEW STRUCTURE
10	SLR BRIDGE	5.200	NEW STRUCTURE
11	C.D. WORKS	5.680	REPAIR
12	SLR BRIDGE	5.700	REPAIR
13	FALL (0.914 M)	5.800	NEW STRUCTURE
14	C.D. WORKS	6.340	RECONSTRUCTION
15	FALL (0.914 M)	6.450	NEW STRUCTURE
16	C.D. WORKS	6.740	RECONSTRUCTION
17	SLR BRIDGE	7.240	NEW STRUCTURE
18	FALL (1.220 M)	7.425	NEW STRUCTURE
19	C.D. WORKS	7.460	REPAIR
20	SLR BRIDGE	7.500	REPAIR
21	C.D. WORKS	7.750	NEW STRUCTURE
22	FALL (0.610 M)	8.575	NEW STRUCTURE
23	SLR BRIDGE	8.600	NEW STRUCTURE
24	FALL (0.610 M)	9.250	NEW STRUCTURE
25	SLR BRIDGE	9.860	RECONSTRUCTION
26	FALL (1.372 M)	9.900	NEW STRUCTURE
27	FALL (1.067 M)	10.825	NEW STRUCTURE
28	FALL (0.914 M)	11.750	NEW STRUCTURE

S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
ANTI MR.			
1	SLR BRIDGE	1.317	NEW STRUCTURE
2	SLR BRIDGE	1.600	NEW STRUCTURE
3	SLR BRIDGE	2.332	NEW STRUCTURE
4	FALL (0.914 M) NEW	3.300	NEW STRUCTURE
5	SLR BRIDGE	3.719	NEW STRUCTURE
6	FALL (0.914 M) NEW	3.800	NEW STRUCTURE
7	FALL (0.914 M)	4.115	NEW STRUCTURE
8	FALL (1.066 M)	4.572	NEW STRUCTURE
9	SLR BRIDGE	4.975	NEW STRUCTURE
10	FALL (0.914 M)	5.334	NEW STRUCTURE
11	SLR BRIDGE	5.669	NEW STRUCTURE
12	FALL (0.762 M)	5.750	NEW STRUCTURE
13	C.D. WORK	5.861	NEW STRUCTURE
14	FALL (1.524 M)	6.553	NEW STRUCTURE
15	DLR BRIDGE	7.000	NEW STRUCTURE
16	SLR BRIDGE	7.163	NEW STRUCTURE
MARUKA MR.			
1	C.D. WORKS	0.091	NEW STRUCTURE
2	FALL (1.220 M) NEW	0.750	NEW STRUCTURE
3	C.D. WORKS + SLR BRIDGE	1.250	NEW STRUCTURE
4	FALL (0.610 M) NEW	1.500	NEW STRUCTURE
5	C.D. WORKS	2.164	NEW STRUCTURE
6	FALL (1.220 M) / SLR BRIDGE	2.438	NEW STRUCTURE
7	DLR BRIDGE	2.600	NEW STRUCTURE
8	FALL (0.915 M)	3.300	NEW STRUCTURE
RAMPUR MR.			
1	C.D. WORKS	0.457	NEW STRUCTURE
2	FALL (0.610 M) NEW	0.600	NEW STRUCTURE
3	SLR BRIDGE	0.762	NEW STRUCTURE
4	SLR BRIDGE	1.125	NEW STRUCTURE
5	FALL (1.524 M) NEW	1.219	NEW STRUCTURE
6	DLR BRIDGE	2.499	NEW STRUCTURE
7	FALL (0.457 M) NEW	2.550	NEW STRUCTURE

S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
GULAB BIGHA MR.			
1	FALL (0.914 M) NEW	0.000	NEW STRUCTURE
2	C.D. WORKS	0.152	NEW STRUCTURE
3	SLR BRIDGE	0.183	NEW STRUCTURE
4	C.D. WORKS	0.457	NEW STRUCTURE
5	SLR BRIDGE	0.550	NEW STRUCTURE
6	SLR BRIDGE	0.823	NEW STRUCTURE
7	DLR BRIDGE	0.975	NEW STRUCTURE
8	FALL (0.610 M)	1.067	NEW STRUCTURE
9	C.D. WORKS	1.128	NEW STRUCTURE
MALHAD SUB DY.			
1	FALL (0.914 M)/ SLR BRIDGE NEW	0.450	NEW STRUCTURE
2	FALL (0.914 M) NEW	1.075	NEW STRUCTURE
3	SLR BRIDGE	1.280	NEW STRUCTURE
4	FALL (0.914 M) / DLR BRIDGE NEW	1.925	NEW STRUCTURE
5	FALL (0.914 M) NEW	2.725	NEW STRUCTURE
6	FALL (0.610 M) NEW	4.025	NEW STRUCTURE
7	SLR BRIDGE	4.390	NEW STRUCTURE
8	FALL (0.305 M) NEW	5.300	NEW STRUCTURE
9	FALL (0.457 M) NEW	5.900	NEW STRUCTURE
10	FALL (0.610 M) NEW	6.750	NEW STRUCTURE
11	FALL (1.066 M) NEW	7.775	NEW STRUCTURE
12	SLR BRIDGE	7.950	NEW STRUCTURE
RAMPUR MR-2			
1	SLR BRIDGE	1.036	NEW STRUCTURE
2	FALL (0.610 M) NEW	1.500	NEW STRUCTURE
3	FALL (0.610 M) NEW	2.125	NEW STRUCTURE
4	FALL (0.914 M) NEW	2.775	NEW STRUCTURE
5	SLR BRIDGE	2.810	NEW STRUCTURE

ESTIMATE

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ABSTRACT OF COST (ANGRA BRANCH CANAL - BALANCE CANALS)							
S. No.	**Items**	**Qty.**	**Unit**	**Rate**	**Seigniorage Charge**	**Amount (Rs.) including Seigniorage Charges**	**Reference for Rate**
1	Earthwork						
	PATHRA MINOR	1	Job	2859060.48	0.00	₹ 28,59,060.48	AOC Earthwork
	DABUR MINOR	1	Job	6957199.05	0.00	₹ 69,57,199.05	
	SADOPUR MINOR	1	Job	5533800.29	0.00	₹ 55,33,800.29	
	DHARAMPUR SUB DY.	1	Job	29134737.09	0.00	₹ 2,91,34,737.09	
	ANTI MINOR	1	Job	14870844.21	0.00	₹ 1,48,70,844.21	
	MARUKA MINOR	1	Job	8377588.03	0.00	₹ 83,77,588.03	
	RAMPUR MINOR	1	Job	6760508.08	0.00	₹ 67,60,508.08	
	GULAB BIGHA MINOR	1	Job	3752188.73	0.00	₹ 37,52,188.73	
	MALHAD SUB DISTRIBUTARY	1	Job	21174761.42	0.00	₹ 2,11,74,761.42	
	RAMPUR MINOR-2	1	Job	6383188.77	0.00	₹ 63,83,188.77	
2	Falls						
	PATHRA MINOR						
	0.914 m Fall / Bridge at Ch. 1.145 Km	1	No.	1105565.12	9318.63	₹ 11,14,883.75	Fall (AOC) Partha Minor
	Well type Fall At Km 1.250	1	No.	1298870.88	8037.59	₹ 13,06,908.47	
	0.914 m Fall/ Bridge at Ch. 1.631 Km	1	No.	1105617.03	9318.63	₹ 11,14,935.66	
	DABUR MINOR						
	1.220 m Fall at Ch. 2.250 Km	1	No.	438391.30	3501.06	₹ 4,41,892.36	Fall (AOC) Dabur Minor
	SADOPUR MINOR						
	Well type Fall At Km 0.150	1	No.	1457206.10	8831.89	₹ 14,66,037.99	Fall (AOC) Sadopur Minor
	0.762 m Fall at Ch. 1.350 Km	1	No.	635453.77	5365.46	₹ 6,40,819.23	
	0.762 m Fall at Ch. 1.649 Km	1	No.	634757.15	5365.46	₹ 6,40,122.62	
	DHARAMPUR SUB DY						
	1.372 m Fall at Ch. 3.650 Km	1	No.	1396788.58	12270.08	₹ 14,09,058.67	Fall (AOC) Dharampur Sub Dy.
	0.914 m Fall at Ch.5.800 Km	1	No.	874791.75	7539.82	₹ 8,82,331.57	
	0.914 m Fall at Ch. 6.450 Km	1	No.	874277.83	7539.82	₹ 8,81,817.65	
	1.220 m Fall at Ch. 7.425 Km	1	No.	944002.13	8154.04	₹ 9,52,156.18	
	0.610 m Fall at Ch. 8.575 Km	1	No.	662267.29	5662.99	₹ 6,67,930.28	
	0.610 m Fall at Ch. 9.250 Km	1	No.	599502.29	5082.90	₹ 6,04,585.19	
	1.372 m Fall at Ch. 9.900 Km	1	No.	938551.96	8078.10	₹ 9,46,630.06	
	1.067 m Fall at Ch. 10.825 Km	1	No.	593415.99	4948.49	₹ 5,98,364.48	
	0.914 m Fall at Ch. 11.750 Km	1	No.	435098.01	3519.28	₹ 4,38,617.29	
	ANTI MINOR						
	0.914 m Fall at Ch. 3.300 Km	1	No.	842301.21	7233.51	₹ 8,49,534.72	Fall (AOC) Anti Minor
	0.914 m Fall at Ch. 3.800 Km	1	No.	836067.66	7233.51	₹ 8,43,301.17	
	0.914 m Fall at Ch. 4.115 Km	1	No.	837356.47	7233.51	₹ 8,44,589.98	
	1.067 m Fall at Ch. 4.572 Km	1	No.	660169.41	5549.15	₹ 6,65,718.56	
	0.914 m Fall at Ch. 5.334 Km	1	No.	577688.69	4866.03	₹ 5,82,554.72	
	0.762 m Fall at Ch. 5.750 Km	1	No.	635453.77	5365.46	₹ 6,40,819.23	
	1.524 m Fall at Ch. 6.553 Km	1	No.	851171.02	7303.94	₹ 8,58,474.96	
	MARUKA MINOR						
	1.220 m Fall at Ch. 0.750 Km	1	No.	729914.33	6222.77	₹ 7,36,137.10	Fall (AOC) Maruka Minor
	0.610 m Fall at Ch. 1.500 Km	1	No.	596747.17	5090.32	₹ 6,01,837.49	
	1.220 m Fall Cum Bridge at Ch. 2.438 Km	1	No.	1063917.44	9164.85	₹ 10,73,082.29	
	0.914 m Fall at Ch. 3.300 Km	1	No.	537822.62	4473.29	₹ 5,42,295.91	
	RAMPUR MINOR						
	0.610 m Fall at Ch. 0.600 Km	1	No.	454632.50	3752.81	₹ 4,58,385.31	Fall (AOC) Rampur Minor
	1.524 m Fall at Ch. 1.219 Km	1	No.	851171.02	7303.94	₹ 8,58,474.96	
	0.457 m Fall at Ch. 2.550 Km	1	No.	375614.55	3066.73	₹ 3,78,681.29	
	GULAB BIGHA MINOR						
	0.914 m at Ch. 0.000 Km	1	No.	538463.05	4473.29	₹ 5,42,936.34	Fall (AOC) Gulab Bigha Minor
	0.610 m Fall at Ch. 1.067 Km	1	No.	449628.99	3743.78	₹ 4,53,372.76	

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charge	Amount (Rs.) including Seigniorage Charges	Reference for Rate
	MALHAD SUB DY.						
	0.914 m Fall cum Bridge at Ch. 0.450 Km	1	No.	1425029.10	12295.62	₹ 14,37,324.72	Fall (AOC) Malhad sub Dy
	0.914 m at Ch. 1.075 Km	1	No.	762469.82	6600.20	₹ 7,69,070.02	
	0.914 m Fall cum bridge at Ch. 1.925 Km	1	No.	1649268.62	14339.66	₹ 16,63,608.28	
	0.914 m at Ch. 2.725 Km	1	No.	773042.44	6733.18	₹ 7,79,775.63	
	0.610 m at Ch. 4.025 Km	1	No.	678816.25	5834.34	₹ 6,84,650.58	
	0.305 m at Ch. 5.300 Km	1	No.	494966.07	4266.69	₹ 4,99,232.76	
	0.457 m at Ch. 5.900 Km	1	No.	497218.74	4287.50	₹ 5,01,506.24	
	0.610 m at Ch. 6.750 Km	1	No.	600330.97	5090.32	₹ 6,05,421.29	
	1.067 m Fall at Ch. 7.775 Km	1	No.	540647.55	4555.44	₹ 5,45,202.99	
	RAMPUR MINOR-2						
	0.610 m Fall at Ch. 1.500 Km	1	No.	596747.17	5090.32	₹ 6,01,837.49	Fall (AOC) Rampur Minor-2
	0.610 m Fall at Ch. 2.125 Km	1	No.	598118.36	5090.32	₹ 6,03,208.68	
	0.914 m Fall at Ch. 2.775 Km	1	No.	577688.69	4866.03	₹ 5,82,554.72	
3	*Cross Drainage Works*						
	PATHRA MINOR						
	At Km 1.750	1	No.	1085983.49	8777.28	₹ 10,94,760.77	CD (AOC) Pathra Minor
	At Km 2.073	1	No.	1123658.15	9170.59	₹ 11,32,828.74	
	DABUR MINOR						
	At Km 2.774	1	No.	821909.46	7194.34	₹ 8,29,103.80	CD (AOC) Dabur Minor
	SADOPUR MINOR						
	At Km 0.381	1	No.	1181656.31	9499.24	₹ 11,91,155.55	CD (AOC) Sadopur Minor
	At Km 1.600	1	No.	1694209.85	13555.38	₹ 17,07,765.23	
	DHARAMPUR SUB DY						
	At Km 1.900	1	No.	1999478.09	16339.87	₹ 20,15,817.96	CD (AOC) Dharampur Sub Dy.
	At Km 3.400	1	No.	2355097.53	18315.99	₹ 23,73,413.52	
	At Km 4.250	1	No.	1760208.16	13971.22	₹ 17,74,179.38	
	At Km 5.150	1	No.	1639221.62	13138.67	₹ 16,52,360.29	
	At Km 6.340	1	No.	1775977.86	13341.19	₹ 17,89,319.04	
	At Km 6.740	1	No.	1787835.52	13384.74	₹ 18,01,220.26	
	At Km 7.750	1	No.	1513862.67	12323.76	₹ 15,26,186.43	
	ANTI MINOR						
	At Km 5.861	1	No.	1693486.22	13555.38	₹ 17,07,041.60	CD (AOC) Anti Minor
	MARUKA MINOR						
	At Km 0.091	1	No.	1025266.08	8326.73	₹ 10,33,592.81	CD (AOC) Maruka Minor
	At Km 1.250	1	No.	1024012.63	8326.73	₹ 10,32,339.36	
	At Km 2.164	1	No.	1111324.68	9170.59	₹ 11,20,495.27	
	RAMPUR MINOR						
	At Km 0.457	1	No.	1109913.29	9170.59	₹ 11,19,083.88	CD (AOC) Rampur Minor
	GULAB BIGHA MINOR						
	At Km 0.152	1	No.	1155743.34	9412.57	₹ 11,65,155.90	CD (AOC) Gulab Bigha Minor
	At Km 0.457	1	No.	1585717.60	12931.48	₹ 15,98,649.07	
	At Km 1.128	1	No.	1576109.81	12931.48	₹ 15,89,041.29	
4	*Slab Bridge*						
	PATHRA MINOR						
	At Km 1.951	1	No.	1357922.74	7111.22	₹ 13,65,033.96	Slab (AOC) Pathra Minor
	DABUR MINOR						
	At Km 0.884	1	No.	1372466.22	7208.67	₹ 13,79,674.89	

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charge	Amount (Rs.) including Seigniorage Charges	Reference for Rate
	At Km 2.682	1	No.	683756.22	1462.67	₹ 6,85,218.89	Slab (AOC) Dabur Minor
	At Km 3.078	1	No.	669187.77	1462.67	₹ 6,70,650.44	
	At Km 3.475	1	No.	670962.71	1462.67	₹ 6,72,425.38	
	SADOPUR MINOR						
	At Km 0.366	1	No.	1336893.35	6877.87	₹ 13,43,771.22	Slab (AOC) Sadopur Minor
	At Km 0.930	1	No.	1311093.29	6667.96	₹ 13,17,761.25	
	At Km 1.844	1	No.	663403.75	1408.25	₹ 6,64,812.00	
	DHARAMPUR SUB DY						
	At Km 4.300	1	No.	1595749.67	8182.87	₹ 16,03,932.55	Slab (AOC) Dharampur Sub Dy.
	At Km 5.200	1	No.	1487161.75	7899.81	₹ 14,95,061.56	
	At Km 7.240	1	No.	1751189.60	9447.74	₹ 17,60,637.34	
	At Km 7.500	1	No.	1476813.40	7899.81	₹ 14,84,713.21	
	At Km 8.600	1	No.	1368850.66	7024.74	₹ 13,75,875.40	
	At Km 9.860	1	No.	1792926.62	9819.26	₹ 18,02,745.88	
	ANTI MINOR						
	At Km 1.317	1	No.	1518761.27	8134.86	₹ 15,26,896.13	Slab (AOC) Anti Minor
	At Km 1.600	1	No.	1593257.10	8777.05	₹ 16,02,034.15	
	At Km 2.332	1	No.	1487397.84	7899.81	₹ 14,95,297.65	
	At Km 3.719	1	No.	1509996.68	8145.38	₹ 15,18,142.05	
	At Km 4.975	1	No.	1386069.28	7359.68	₹ 13,93,428.96	
	At Km 5.669	1	No.	1378764.11	7164.27	₹ 13,85,928.38	
	At Km 7.000	1	No.	1177091.41	3470.58	₹ 11,80,561.99	
	At Km 7.163	1	No.	662612.60	1434.02	₹ 6,64,046.62	
	RAMPUR MINOR						
	At Km 0.762	1	No.	1306418.07	6541.60	₹ 13,12,959.67	Slab (AOC) Rampur Minor
	At Km 1.125	1	No.	1472027.60	8247.64	₹ 14,80,275.24	
	At Km 2.499	1	No.	1191548.99	3534.90	₹ 11,95,083.88	
	MARUKA MINOR						
	At Km 1.250	1	No.	1326968.78	6842.18	₹ 13,33,810.96	Slab (AOC) Maruka Minor
	At Km 2.600	1	No.	1905500.54	9488.78	₹ 19,14,989.32	
	GULAB BIGHA MINOR						
	At Km 0.183	1	No.	1311093.29	6667.96	₹ 13,17,761.25	Slab (AOC) Gulab Bigha Minor
	At Km 0.550	1	No.	671759.79	1479.85	₹ 6,73,239.64	
	At Km 0.823	1	No.	668264.21	1462.67	₹ 6,69,726.88	
	At Km 0.975	1	No.	676308.30	1462.67	₹ 6,77,770.96	
	MALHAD SUB DY						
	At Km 1.280	1	No.	1758234.17	9446.31	₹ 17,67,680.47	Slab (AOC) Malhad Sub Dy.
	At Km 4.390	1	No.	1674357.55	8786.88	₹ 16,83,144.43	
	At Km 7.950	1	No.	1397376.46	6454.53	₹ 14,03,830.99	
	RAMPUR MINOR 2						
	At Km 1.036	1	No.	1391157.08	7339.01	₹ 13,98,496.09	Slab (AOC) Rampur Minor 2
	At Km 2.810	1	No.	1357468.84	7115.51	₹ 13,64,584.35	
5	*Repair of Structures*						
	DHARAMPUR SUB DY.	1	No.	393059.5157	560.75	₹ 3,93,620.26	Abstract (Repair Str.) Dharampur Sub Dy
6	Outlets						
	PATHRA MINOR	5	No.	127744.47	1100.17	₹ 6,44,223.20	
	DABUR MINOR	4	No.	127744.47	1100.17	₹ 5,15,378.56	
	SADOPUR MINOR	6	No.	127744.47	1100.17	₹ 7,73,067.84	
	DHARAMPUR SUB DY.	22	No.	127744.47	1100.17	₹ 28,34,582.09	
	ANTI MINOR	30	No.	127744.47	1100.17	₹ 38,65,339.22	

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charge	Amount (Rs.) including Seigniorage Charges	Reference for Rate
	MARUKA MINOR	9	No.	127744.47	1100.17	₹ 11,59,601.77	
	RAMPUR MINOR	6	No.	127744.47	1100.17	₹ 7,73,067.84	
	GULAB BIGHA MINOR	2	No.	127744.47	1100.17	₹ 2,57,689.28	
	MALHAD SUB DISTRIBUTARY	19	No.	127744.47	1100.17	₹ 24,48,048.17	
	RAMPUR MINOR-2	11	No.	127744.47	1100.17	₹ 14,17,291.05	
7	Kilometer Stone	61	No.	3853.40	0.00	₹ 2,35,057.40	Rates
	TOTAL (In Rs.)					**231267038.65**	
	TOTAL (In Lacs)					**2312.67**	

	Carriage of Materials Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P																		
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_a)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage of Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

CONCRETE MIX RATIO TABLE

Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	0.108	0.015		
9	Cement Punning	1.00	0.0015			

Earthwork

(Total Cost – Rs ₹10,58,03,876.15)

DETAIL QUANTITIES OF EARTHWORK

PATHRA MR. (0.000 TO 2.400 KM)

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	0.906	0.453	45.300	4.976	2.488	248.800
200	100	0.564	0.735	73.500	6.648	5.812	581.200
300	100	1.069	0.817	81.650	4.314	5.481	548.100
400	100	1.867	1.468	146.800	2.610	3.462	346.200
500	100	1.040	1.454	145.350	2.973	2.792	279.150
600	100	1.896	1.468	146.800	2.676	2.825	282.450
700	100	1.795	1.846	184.550	2.057	2.367	236.650
800	100	1.773	1.784	178.400	4.905	3.481	348.100
900	100	1.069	1.421	142.100	3.314	4.110	410.950
1000	100	1.867	1.468	146.800	3.610	3.462	346.200
1100	100	1.240	1.554	155.350	2.163	2.887	288.650
1200	100	2.647	1.944	194.350	3.057	2.610	261.000
1300	100	1.795	2.221	222.100	1.718	2.388	238.750
1400	100	2.783	2.289	228.900	4.215	2.967	296.650
1500	100	1.857	2.320	232.000	2.510	3.363	336.250
1600	100	1.140	1.499	149.850	3.078	2.794	279.400
1700	100	2.325	1.733	173.250	3.676	3.377	337.700
1800	100	1.795	2.060	206.000	3.127	3.402	340.150
1900	100	1.836	1.816	181.550	2.373	2.750	275.000
2000	100	1.812	1.824	182.400	2.158	2.266	226.550
2100	100	3.563	2.688	268.750	2.777	2.468	246.750
2200	100	2.066	2.815	281.450	1.956	2.367	236.650
2300	100	1.795	1.931	193.050	2.057	2.007	200.650
2400	100	1.250	1.523	152.250	4.320	3.189	318.850
Total				**4112.500**			**7510.800**
						Earthwork in Cutting	**4112.500**
						Earthwork in Filling	**7510.800**
						Net quantity of Earthwork	**3398.30**

Chainge	Length	Earthwork in Cutting			Earthwork in filling		
		Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK DABUR MINOR (0.000 TO 1.326 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	3.417	1.709	170.850	5.205	2.603	260.250
200	100	3.172	3.295	329.450	4.326	4.766	476.550
300	100	2.934	3.053	305.300	2.601	3.464	346.350
400	100	2.188	2.561	256.100	2.846	2.724	272.350
500	100	1.907	2.048	204.750	3.147	2.997	299.650
600	100	1.806	1.857	185.650	1.652	2.400	239.950
700	100	1.292	1.549	154.900	3.612	2.632	263.200
800	100	0.836	1.064	106.400	5.840	4.726	472.600
900	100	0.400	0.618	61.800	8.567	7.204	720.350
1000	100	0.018	0.209	20.900	12.208	10.388	1038.750
1100	100	0.401	0.210	20.950	5.927	9.068	906.750
1200	100	0.505	0.453	45.300	12.591	9.259	925.900
1300	100	0.802	0.654	65.350	16.850	14.721	1472.050
1400	100	1.006	0.904	90.400	11.100	13.975	1397.500
1500	100	1.203	1.105	110.450	12.234	11.667	1166.700
1600	100	1.407	1.305	130.500	15.635	13.935	1393.450
1700	100	1.608	1.508	150.750	8.125	11.880	1188.000
1800	100	1.812	1.710	171.000	3.212	5.669	566.850
1900	100	2.013	1.913	191.250	7.978	5.595	559.500
2000	100	2.217	2.115	211.500	8.526	8.252	825.200
2100	100	2.418	2.318	231.750	6.214	7.370	737.000
2200	100	1.693	2.056	205.550	4.013	5.114	511.350
2300	100	3.573	2.633	263.300	0.401	2.207	220.700
2400	100	3.339	3.456	345.600	0.505	0.453	45.300
2500	100	2.589	2.964	296.400	0.802	0.654	65.350
2600	100	3.175	2.882	288.200	1.006	0.904	90.400
2700	100	3.439	3.307	330.700	1.203	1.105	110.450
2800	100	2.586	3.013	301.250	1.407	1.305	130.500
2900	100	2.100	2.343	234.300	1.608	1.508	150.750
3000	100	1.985	2.043	204.250	1.812	1.710	171.000
3100	100	1.500	1.743	174.250	2.013	1.913	191.250
3200	100	9.992	5.746	574.600	2.217	2.115	211.500
3300	100	3.635	6.814	681.350	0.785	1.501	150.100
3400	100	2.518	3.077	307.650	0.995	0.890	89.000
3500	100	3.023	2.771	277.050	1.245	1.120	112.000
3550	50	3.528	2.017	100.825	1.530	7.061	353.025
Total				**7800.575**			**18131.575**
						Earthwork in Cutting	**7800.575**
						Earthwork in Filling	**18131.575**
						Net quantity of Earthwork	**10331.00**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK SADOPUR MINOR (0.000 TO 2.325 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.721	0.361	36.050	3.956	1.978	197.800
200	100	0.609	0.665	66.500	9.750	6.853	685.300
300	100	0.604	0.607	60.650	4.656	7.203	720.300
400	100	0.823	0.714	71.350	5.934	5.295	529.500
500	100	0.748	0.786	78.550	4.727	5.331	533.050
600	100	0.684	0.716	71.600	5.041	4.884	488.400
700	100	0.574	0.629	62.900	5.630	5.336	533.550
800	100	0.733	0.654	65.350	5.563	5.597	559.650
900	100	0.366	0.550	54.950	10.350	7.957	795.650
1000	100	0.000	0.183	18.300	11.902	11.126	1112.600
1100	100	0.000	0.000	0.000	13.413	12.658	1265.750
1200	100	0.000	0.000	0.000	15.587	14.500	1450.000
1300	100	0.000	0.000	0.000	18.048	16.818	1681.750
1400	100	0.192	0.096	9.600	8.706	13.377	1337.700
1500	100	0.067	0.130	12.950	8.991	8.849	884.850
1600	100	10.000	5.034	503.350	11.599	10.295	1029.500
1700	100	0.590	5.295	529.500	4.089	7.844	784.400
1800	100	0.479	0.535	53.450	4.146	4.118	411.750
1900	100	0.424	0.452	45.150	5.160	4.653	465.300
2000	100	0.406	0.415	41.500	4.924	5.042	504.200
2100	100	0.660	0.533	53.300	3.523	4.224	422.350
2200	100	0.868	0.764	76.400	0.814	2.169	216.850
2300	100	0.000	0.434	43.400	9.794	5.304	530.400
2325	25	0.000	0.000	0.000	10.023	9.909	247.713
Total				**5954.800**			**14388.313**
						Earthwork in Cutting	**5954.800**
						Earthwork in Filling	**14388.313**
						Net quantity of Earthwork	**8433.51**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK DHARAMPUR SUB DY. (0.000 TO 12.000 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.106	0.553	55.300	3.549	1.775	177.450
200	100	0.829	0.968	96.750	4.315	3.932	393.200
300	100	1.082	0.956	95.550	4.952	4.634	463.350
400	100	3.150	2.116	211.600	2.266	3.609	360.900
500	100	6.372	4.761	476.100	1.591	1.929	192.850
600	100	3.733	5.053	505.250	2.132	1.862	186.150
700	100	6.509	5.121	512.100	1.883	2.008	200.750
800	100	1.935	4.222	422.200	2.248	2.066	206.550
900	100	0.898	1.417	141.650	4.006	3.127	312.700
1000	100	0.408	0.653	65.300	5.401	4.704	470.350
1100	100	0.046	0.227	22.700	3.740	4.571	457.050
1200	100	0.000	0.023	2.300	5.779	4.760	475.950
1300	100	1.272	0.636	63.600	5.496	5.638	563.750
1400	100	0.870	1.071	107.100	6.980	6.238	623.800
1500	100	0.000	0.435	43.500	12.168	9.574	957.400
1600	100	0.000	0.000	0.000	11.763	11.966	1196.550
1700	100	0.000	0.000	0.000	11.152	11.458	1145.750
1800	100	0.000	0.000	0.000	10.197	10.675	1067.450
1900	100	0.018	0.009	0.900	8.672	9.435	943.450
2000	100	0.094	0.056	5.600	9.287	8.980	897.950
2100	100	0.158	0.126	12.600	9.861	9.574	957.400
2200	100	0.235	0.197	19.650	9.122	9.492	949.150
2300	100	0.331	0.283	28.300	8.651	8.887	888.650
2400	100	0.434	0.383	38.250	8.463	8.557	855.700
2500	100	0.193	0.314	31.350	6.660	7.562	756.150
2600	100	0.000	0.097	9.650	11.054	8.857	885.700
2700	100	0.827	0.414	41.350	6.634	8.844	884.400
2800	100	0.661	0.744	74.400	7.168	6.901	690.100
2900	100	0.507	0.584	58.400	7.758	7.463	746.300
3000	100	0.353	0.430	43.000	8.288	8.023	802.300
3100	100	0.203	0.278	27.800	8.894	8.591	859.100
3200	100	0.063	0.133	13.300	6.270	7.582	758.200
3300	100	0.007	0.035	3.500	6.904	6.587	658.700
3400	100	0.017	0.012	1.200	8.858	7.881	788.100
3500	100	0.000	0.009	0.850	8.243	8.551	855.050
3600	100	0.000	0.000	0.000	10.855	9.549	954.900
3700	100	3.865	1.933	193.250	8.776	9.816	981.550
3800	100	3.654	3.760	375.950	7.855	8.316	831.550
3900	100	3.024	3.339	333.900	7.954	7.905	790.450
4000	100	2.415	2.720	271.950	8.945	8.450	844.950
4100	100	1.920	2.168	216.750	8.694	8.820	881.950
4200	100	1.412	1.666	166.600	8.260	8.477	847.700

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	0.931	1.172	117.150	10.739	9.500	949.950
4400	100	0.850	0.891	89.050	8.012	9.376	937.550
4500	100	0.531	0.691	69.050	7.009	7.511	751.050
4600	100	0.426	0.479	47.850	6.911	6.960	696.000
4700	100	0.357	0.392	39.150	6.794	6.853	685.250
4800	100	0.356	0.357	35.650	7.035	6.915	691.450
4900	100	0.252	0.304	30.400	4.290	5.663	566.250
5000	100	0.305	0.279	27.850	9.013	6.652	665.150
5100	100	0.314	0.310	30.950	5.270	7.142	714.150
5200	100	0.003	0.159	15.850	10.235	7.753	775.250
5300	100	0.000	0.002	0.150	9.976	10.106	1010.550
5400	100	0.038	0.019	1.900	8.643	9.310	930.950
5500	100	0.000	0.019	1.900	12.876	10.760	1075.950
5600	100	0.159	0.080	7.950	7.949	10.413	1041.250
5700	100	0.048	0.104	10.350	8.902	8.426	842.550
5800	100	0.000	0.024	2.400	18.190	13.546	1354.600
5900	100	1.293	0.647	64.650	5.288	11.739	1173.900
6000	100	0.882	1.088	108.750	5.522	5.405	540.500
6100	100	0.573	0.728	72.750	6.349	5.936	593.550
6200	100	0.240	0.407	40.650	7.380	6.865	686.450
6300	100	0.048	0.144	14.400	8.956	8.168	816.800
6400	100	0.000	0.024	2.400	15.652	12.304	1230.400
6500	100	1.191	0.596	59.550	9.875	12.764	1276.350
6600	100	0.059	0.625	62.500	7.389	8.632	863.200
6700	100	0.989	0.524	52.400	6.927	7.158	715.800
6800	100	1.507	1.248	124.800	3.801	5.364	536.400
6900	100	1.039	1.273	127.300	5.616	4.709	470.850
7000	100	0.749	0.894	89.400	5.601	5.609	560.850
7100	100	0.783	0.766	76.600	5.635	5.618	561.800
7200	100	0.161	0.472	47.200	8.216	6.926	692.550
7300	100	0.000	0.081	8.050	13.218	10.717	1071.700
7400	100	0.000	0.000	0.000	16.600	14.909	1490.900
7500	100	2.283	1.142	114.150	2.250	9.425	942.500
7600	100	2.102	2.193	219.250	4.386	3.318	331.800
7700	100	1.503	1.803	180.250	3.465	3.926	392.550
7800	100	1.025	1.264	126.400	5.513	4.489	448.900
7900	100	0.535	0.780	78.000	6.608	6.061	606.050
8000	100	0.390	0.463	46.250	7.361	6.985	698.450
8100	100	0.000	0.195	19.500	8.895	8.128	812.800
8200	100	0.000	0.000	0.000	7.950	8.423	842.250
8300	100	0.022	0.011	1.100	9.232	8.591	859.100
8400	100	0.121	0.072	7.150	8.703	8.968	896.750
8500	100	0.122	0.122	12.150	9.446	9.075	907.450
8600	100	1.257	0.690	68.950	3.153	6.300	629.950
8700	100	1.218	1.238	123.750	3.079	3.116	311.600

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
8800	100	1.163	1.191	119.050	3.603	3.341	334.100
8900	100	0.836	1.000	99.950	4.641	4.122	412.200
9000	100	0.441	0.639	63.850	5.411	5.026	502.600
9100	100	0.217	0.329	32.900	6.990	6.201	620.050
9200	100	0.000	0.109	10.850	8.880	7.935	793.500
9300	100	1.318	0.659	65.900	5.361	7.121	712.050
9400	100	0.707	1.013	101.250	2.360	3.861	386.050
9500	100	0.000	0.354	35.350	5.668	4.014	401.400
9600	100	0.000	0.000	0.000	7.397	6.533	653.250
9700	100	0.000	0.000	0.000	9.164	8.281	828.050
9800	100	0.000	0.000	0.000	11.013	10.089	1008.850
9900	100	0.000	0.000	0.000	13.519	12.266	1226.600
10000	100	1.988	0.994	99.400	2.724	8.122	812.150
10100	100	1.636	1.812	181.200	3.246	2.985	298.500
10200	100	1.268	1.452	145.200	3.271	3.259	325.850
10300	100	1.003	1.136	113.550	2.948	3.110	310.950
10400	100	0.600	0.802	80.150	4.287	3.618	361.750
10500	100	0.292	0.446	44.600	5.612	4.950	494.950
10600	100	0.034	0.163	16.300	6.182	5.897	589.700
10700	100	0.000	0.017	1.700	7.733	6.958	695.750
10800	100	0.000	0.000	0.000	9.463	8.598	859.800
10900	100	2.118	1.059	105.900	1.637	5.550	555.000
11000	100	1.720	1.919	191.900	2.368	2.003	200.250
11100	100	0.951	1.336	133.550	3.194	2.781	278.100
11200	100	1.729	1.340	134.000	1.444	2.319	231.900
11300	100	1.191	1.460	146.000	2.129	1.787	178.650
11400	100	0.496	0.844	84.350	2.981	2.555	255.500
11500	100	0.202	0.349	34.900	4.022	3.502	350.150
11600	100	0.104	0.153	15.300	4.808	4.415	441.500
11700	100	0.000	0.052	5.200	6.003	5.406	540.550
11800	100	0.000	0.000	0.000	5.684	5.844	584.350
11900	100	0.406	0.203	20.300	3.483	4.584	458.350
12000	100	0.000	0.203	20.300	10.598	7.041	704.050
Total				**18368.300**			**71817.900**
						TOTAL QUANTITY OF EARTHWORK IN EXCAVATION	**18368.300**
						TOTAL QUANTITY OF EARTHWORK IN BACKFILLING	**71817.900**
						NET QUANTITY OF EARTHWORK	**53449.60**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK ANTI MINOR (0.000 TO 7.100 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	5.231	2.616	261.550	1.929	0.965	96.450
200	100	6.037	5.634	563.400	4.234	3.082	308.150
300	100	6.667	6.352	635.200	0.990	2.612	261.200
400	100	7.330	6.999	699.850	1.083	1.037	103.650
500	100	7.373	7.352	735.150	1.314	1.199	119.850
600	100	9.213	8.293	829.300	1.385	1.350	134.950
700	100	7.610	8.412	841.150	1.471	1.428	142.800
800	100	7.407	7.509	750.850	1.350	1.411	141.050
900	100	7.235	7.321	732.100	1.191	1.271	127.050
1000	100	6.885	7.060	706.000	1.952	1.572	157.150
1100	100	6.640	6.763	676.250	2.011	1.982	198.150
1200	100	7.072	6.856	685.600	5.467	3.739	373.900
1300	100	5.855	6.464	646.350	2.774	4.121	412.050
1400	100	7.648	6.752	675.150	2.179	2.477	247.650
1500	100	10.128	8.888	888.800	1.472	1.826	182.550
1600	100	9.056	9.592	959.200	1.672	1.572	157.200
1700	100	9.453	9.255	925.450	1.568	1.620	162.000
1800	100	9.017	9.235	923.500	1.542	1.555	155.500
1900	100	8.603	8.810	881.000	1.842	1.692	169.200
2000	100	7.200	7.902	790.150	1.183	1.513	151.250
2100	100	4.803	6.002	600.150	2.555	1.869	186.900
2200	100	4.070	4.437	443.650	2.180	2.368	236.750
2300	100	2.730	3.400	340.000	4.899	3.540	353.950
2400	100	0.943	1.837	183.650	5.963	5.431	543.100
2500	100	1.546	1.245	124.450	5.650	5.807	580.650
2600	100	1.114	1.330	133.000	3.425	4.538	453.750
2700	100	1.130	1.122	112.200	5.323	4.374	437.400
2800	100	0.000	0.565	56.500	10.938	8.131	813.050
2900	100	0.000	0.000	0.000	14.957	12.948	1294.750
3000	100	0.000	0.000	0.000	14.135	14.546	1454.600
3100	100	0.000	0.000	0.000	13.943	14.039	1403.900
3200	100	0.000	0.000	0.000	16.668	15.306	1530.550
3300	100	0.000	0.000	0.000	13.920	15.294	1529.400
3400	100	2.192	1.096	109.600	4.479	9.200	919.950
3500	100	0.462	1.327	132.700	9.112	6.796	679.550
3600	100	0.391	0.427	42.650	7.743	8.428	842.750
3700	100	0.250	0.321	32.050	9.115	8.429	842.900
3800	100	0.000	0.125	12.500	16.880	12.998	1299.750
3900	100	0.617	0.309	30.850	7.815	12.348	1234.750
4000	100	0.000	0.309	30.850	12.878	10.347	1034.650
4100	100	0.000	0.000	0.000	13.937	13.408	1340.750
4200	100	2.351	1.176	117.550	2.451	8.194	819.400

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	0.972	1.662	166.150	5.360	3.906	390.550
4400	100	0.420	0.696	69.600	8.468	6.914	691.400
4500	100	0.054	0.237	23.700	10.908	9.688	968.800
4600	100	2.777	1.416	141.550	2.658	6.783	678.300
4700	100	2.016	2.397	239.650	3.305	2.982	298.150
4800	100	0.674	1.345	134.500	3.493	3.399	339.900
4900	100	0.256	0.465	46.500	6.136	4.815	481.450
5000	100	0.000	0.128	12.800	4.054	5.095	509.500
5100	100	0.132	0.066	6.600	3.762	3.908	390.800
5200	100	0.000	0.066	6.600	3.205	3.484	348.350
5300	100	0.000	0.000	0.000	7.564	5.385	538.450
5400	100	1.363	0.682	68.150	3.694	5.629	562.900
5500	100	0.777	1.070	107.000	5.517	4.606	460.550
5600	100	0.437	0.607	60.700	7.144	6.331	633.050
5700	100	0.017	0.227	22.700	7.680	7.412	741.200
5800	100	1.408	0.713	71.250	4.404	6.042	604.200
5900	100	0.751	1.080	107.950	4.001	4.203	420.250
6000	100	0.073	0.412	41.200	7.288	5.645	564.450
6100	100	0.011	0.042	4.200	5.780	6.534	653.400
6200	100	0.000	0.006	0.550	6.680	6.230	623.000
6300	100	0.000	0.000	0.000	7.657	7.169	716.850
6400	100	0.000	0.000	0.000	8.596	8.127	812.650
6500	100	0.000	0.000	0.000	9.792	9.194	919.400
6600	100	1.012	0.506	50.600	1.870	5.831	583.100
6700	100	0.924	0.968	96.800	3.949	2.910	290.950
6800	100	0.853	0.889	88.850	3.871	3.910	391.000
6900	100	0.207	0.530	53.000	4.247	4.059	405.900
7000	100	0.068	0.138	13.750	5.163	4.705	470.500
7100	100	0.170	0.119	11.900	2.776	3.970	396.950
Total				**18954.600**			**39520.900**
						Earthwork in Cutting	**18954.600**
						Earthwork in Filling	**39520.900**
						Net quantity of Earthwork	**20566.300**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK MARUKA MINOR (0.000 TO 3.960 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	2.377	1.189	118.850	6.647	3.324	332.350
200	100	2.083	2.230	223.000	2.132	4.390	438.950
300	100	0.500	1.292	129.150	4.768	3.450	345.000
400	100	0.250	0.375	37.500	5.993	5.381	538.050
500	100	0.042	0.146	14.600	7.675	6.834	683.400
600	100	0.000	0.021	2.100	8.272	7.974	797.350
700	100	0.000	0.000	0.000	10.329	9.301	930.050
800	100	2.002	1.001	100.100	4.926	7.628	762.750
900	100	1.515	1.759	175.850	3.746	4.336	433.600
1000	100	1.193	1.354	135.400	3.756	3.751	375.100
1100	100	0.857	1.025	102.500	4.013	3.885	388.450
1200	100	0.637	0.747	74.700	3.521	3.767	376.700
1300	100	0.297	0.467	46.700	5.054	4.288	428.750
1400	100	0.145	0.221	22.100	6.155	5.605	560.450
1500	100	0.000	0.073	7.250	7.110	6.633	663.250
1600	100	0.850	0.425	42.500	4.176	5.643	564.300
1700	100	0.587	0.719	71.850	5.551	4.864	486.350
1800	100	0.543	0.565	56.500	3.738	4.645	464.450
1900	100	1.136	0.840	83.950	4.772	4.255	425.500
2000	100	0.587	0.862	86.150	4.093	4.433	443.250
2100	100	0.285	0.436	43.600	4.829	4.461	446.100
2200	100	0.000	0.143	14.250	4.856	4.843	484.250
2300	100	0.000	0.000	0.000	6.629	5.743	574.250
2400	100	0.000	0.000	0.000	6.976	6.803	680.250
2500	100	0.811	0.406	40.550	4.751	5.864	586.350
2600	100	0.223	0.517	51.700	5.888	5.320	531.950
2700	100	0.366	0.295	29.450	11.332	8.610	861.000
2800	100	0.328	0.347	34.700	11.945	11.639	1163.850
2900	100	0.297	0.313	31.250	11.500	11.723	1172.250
3000	100	0.000	0.149	14.850	5.691	8.596	859.550
3100	100	0.000	0.000	0.000	8.900	7.296	729.550
3200	100	0.000	0.000	0.000	14.173	11.537	1153.650
3300	100	0.000	0.000	0.000	6.501	10.337	1033.700
3400	100	0.525	0.263	26.250	2.169	4.335	433.500
3500	100	0.465	0.495	49.500	3.090	2.630	262.950

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
3600	100	0.417	0.441	44.100	4.165	3.628	362.750
3700	100	0.398	0.408	40.750	3.260	3.713	371.250
3800	100	0.140	0.269	26.900	3.776	3.518	351.800
3960	160	0.080	0.110	17.600	4.332	4.054	648.640
Total				**7996.200**			**21145.640**
						Earthwork in Cutting	**7996.200**
						Earthwork in Filling	**21145.640**
						Net quantity of Earthwork	**13149.440**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK RAMPUR MINOR (0.000 TO 3.100 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.300	0.150	15.000	7.334	3.667	366.700
200	100	0.111	0.206	20.550	8.378	7.856	785.600
300	100	0.032	0.072	7.150	6.610	7.494	749.400
400	100	0.000	0.016	1.600	10.360	8.485	848.500
500	100	0.000	0.000	0.000	13.217	11.789	1178.850
600	100	0.318	0.159	15.900	7.476	10.347	1034.650
700	100	0.198	0.258	25.800	6.030	6.753	675.300
800	100	0.270	0.234	23.400	4.679	5.355	535.450
900	100	0.108	0.189	18.900	5.309	4.994	499.400
1000	100	0.000	0.054	5.400	9.262	7.286	728.550
1100	100	0.000	0.000	0.000	10.059	9.661	966.050
1200	100	0.000	0.000	0.000	13.917	11.988	1198.800
1300	100	0.775	0.388	38.750	2.471	8.194	819.400
1400	100	0.230	0.503	50.250	3.763	3.117	311.700
1500	100	0.000	0.115	11.500	4.385	4.074	407.400
1600	100	0.138	0.069	6.900	2.757	3.571	357.100
1700	100	0.404	0.271	27.100	3.727	3.242	324.200
1800	100	0.572	0.488	48.800	2.756	3.242	324.150
1900	100	0.853	0.713	71.250	2.205	2.481	248.050
2000	100	1.119	0.986	98.600	2.220	2.213	221.250
2100	100	0.810	0.965	96.450	3.345	2.783	278.250
2200	100	0.096	0.453	45.300	3.810	3.578	357.750
2300	100	0.467	0.282	28.150	4.597	4.204	420.350
2400	100	0.003	0.235	23.500	4.867	4.732	473.200
2500	100	0.116	0.060	5.950	4.460	4.664	466.350
2600	100	0.568	0.342	34.200	4.464	4.462	446.200
2700	100	0.497	0.533	53.250	2.046	3.255	325.500
2800	100	0.403	0.450	45.000	2.702	2.374	237.400
2900	100	0.293	0.348	34.800	5.903	4.303	430.250
3000	100	0.226	0.260	25.950	6.681	6.292	629.200
3100	100	0.174	0.200	20.000	6.549	6.615	661.500
Total				**4899.400**			**16306.450**
						Earthwork in Cutting	**4899.400**
						Earthwork in Filling	**16306.450**
						Net quantity of Earthwork	**11407.050**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK GULAB BIGHA MINOR (0.000 TO 2.130 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.184	0.092	9.200	6.080	3.040	304.000
200	100	0.402	0.293	29.300	4.771	5.426	542.550
300	100	0.656	0.529	52.900	3.128	3.950	394.950
400	100	0.721	0.689	68.850	2.656	2.892	289.200
500	100	0.764	0.743	74.250	2.314	2.485	248.500
600	100	0.936	0.850	85.000	1.287	1.801	180.050
700	100	1.243	1.090	108.950	2.203	1.745	174.500
800	100	0.826	1.035	103.450	1.911	2.057	205.700
900	100	0.502	0.664	66.400	4.248	3.080	307.950
1000	100	0.190	0.346	34.600	6.532	5.390	539.000
1100	100	0.062	0.126	12.600	7.281	6.907	690.650
1200	100	0.492	0.277	27.700	4.132	5.707	570.650
1300	100	0.011	0.252	25.150	8.164	6.148	614.800
1400	100	0.000	0.006	0.550	13.023	10.594	1059.350
1500	100	0.506	0.253	25.300	5.205	9.114	911.400
1600	100	0.489	0.498	49.750	4.753	4.979	497.900
1700	100	0.330	0.410	40.950	5.458	5.106	510.550
1800	100	0.324	0.327	32.700	5.563	5.511	551.050
1900	100	0.361	0.343	34.250	5.318	5.441	544.050
2130	230	0.589	0.475	109.250	3.881	4.600	1057.885
Total				**4991.100**			**10194.685**
						Earthwork in Cutting	**4991.100**
						Earthwork in Filling	**10194.685**
						Net quantity of Earthwork	**5203.585**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK MALHAD SUB DY. (0.000 TO 9.134 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.426	0.713	71.300	6.965	3.483	348.250
200	100	1.412	1.419	141.900	7.192	7.079	707.850
300	100	1.008	1.210	121.000	8.208	7.700	770.000
400	100	1.336	1.172	117.200	7.907	8.058	805.750
500	100	1.885	1.611	161.050	3.644	5.776	577.550
600	100	1.404	1.645	164.450	5.025	4.335	433.450
700	100	1.192	1.298	129.800	2.796	3.911	391.050
800	100	0.782	0.987	98.700	4.096	3.446	344.600
900	100	0.164	0.473	47.300	6.234	5.165	516.500
1000	100	0.000	0.082	8.200	8.785	7.510	750.950
1100	100	2.449	1.225	122.450	2.569	5.677	567.700
1200	100	1.883	2.166	216.600	4.742	3.656	365.550
1300	100	0.786	1.335	133.450	8.806	6.774	677.400
1400	100	0.489	0.638	63.750	8.604	8.705	870.500
1500	100	0.258	0.374	37.350	8.653	8.629	862.850
1600	100	0.051	0.155	15.450	9.091	8.872	887.200
1700	100	0.016	0.034	3.350	8.896	8.994	899.350
1800	100	0.020	0.018	1.800	8.675	8.786	878.550
1900	100	0.025	0.023	2.250	8.924	8.800	879.950
2000	100	2.684	1.355	135.450	5.273	7.099	709.850
2100	100	1.787	2.236	223.550	4.493	4.883	488.300
2200	100	1.030	1.409	140.850	5.667	5.080	508.000
2300	100	0.570	0.800	80.000	5.321	5.494	549.400
2400	100	0.399	0.485	48.450	5.079	5.200	520.000
2500	100	0.236	0.318	31.750	5.201	5.140	514.000
2600	100	0.086	0.161	16.100	5.949	5.575	557.500
2700	100	0.003	0.045	4.450	7.127	6.538	653.800
2800	100	1.854	0.929	92.850	4.264	5.696	569.550
2900	100	1.069	1.462	146.150	3.829	4.047	404.650
3000	100	0.404	0.737	73.650	5.567	4.698	469.800
3100	100	0.210	0.307	30.700	9.185	7.376	737.600
3200	100	0.170	0.190	19.000	7.506	8.346	834.550
3300	100	0.126	0.148	14.800	7.260	7.383	738.300
3400	100	0.059	0.093	9.250	7.329	7.295	729.450
3500	100	0.000	0.030	2.950	8.359	7.844	784.400
3600	100	0.000	0.000	0.000	7.831	8.095	809.500
3700	100	0.000	0.000	0.000	8.430	8.131	813.050
3800	100	0.000	0.000	0.000	8.984	8.707	870.700
3900	100	0.000	0.000	0.000	8.511	8.748	874.750
4000	100	0.000	0.000	0.000	9.194	8.853	885.250
4100	100	0.573	0.287	28.650	7.114	8.154	815.400
4200	100	0.458	0.516	51.550	7.142	7.128	712.800

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	0.345	0.402	40.150	7.454	7.298	729.800
4400	100	0.257	0.301	30.100	7.578	7.516	751.600
4500	100	0.166	0.212	21.150	7.795	7.687	768.650
4600	100	0.100	0.133	13.300	9.552	8.674	867.350
4700	100	0.042	0.071	7.100	9.767	9.660	965.950
4800	100	0.002	0.022	2.200	9.269	9.518	951.800
4900	100	0.000	0.001	0.100	8.902	9.086	908.550
5000	100	0.000	0.000	0.000	9.848	9.375	937.500
5100	100	0.000	0.000	0.000	4.775	7.312	731.150
5200	100	0.000	0.000	0.000	4.896	4.836	483.550
5300	100	0.000	0.000	0.000	4.931	4.914	491.350
5400	100	0.210	0.105	10.500	4.804	4.868	486.750
5500	100	0.192	0.201	20.100	4.931	4.868	486.750
5600	100	0.121	0.157	15.650	5.322	5.127	512.650
5700	100	0.000	0.061	6.050	4.793	5.058	505.750
5800	100	0.000	0.000	0.000	5.467	5.130	513.000
5900	100	0.000	0.000	0.000	7.216	6.342	634.150
6000	100	0.243	0.122	12.150	4.771	5.994	599.350
6100	100	0.045	0.144	14.400	5.837	5.304	530.400
6200	100	0.190	0.118	11.750	4.622	5.230	522.950
6300	100	0.446	0.318	31.800	4.454	4.538	453.800
6400	100	0.747	0.597	59.650	4.365	4.410	440.950
6500	100	0.634	0.691	69.050	4.419	4.392	439.200
6600	100	0.253	0.444	44.350	5.111	4.765	476.500
6700	100	0.000	0.127	12.650	5.229	5.170	517.000
6800	100	0.625	0.313	31.250	5.065	5.147	514.700
6900	100	0.342	0.484	48.350	5.254	5.160	515.950
7000	100	0.024	0.183	18.300	5.163	5.209	520.850
7100	100	0.000	0.012	1.200	4.836	5.000	499.950
7200	100	0.025	0.013	1.250	4.590	4.713	471.300
7300	100	0.011	0.018	1.800	4.744	4.667	466.700
7400	100	0.034	0.023	2.250	4.883	4.814	481.350
7500	100	0.000	0.017	1.700	5.813	5.348	534.800
7600	100	0.018	0.009	0.900	5.464	5.639	563.850
7700	100	0.013	0.016	1.550	5.479	5.472	547.150
7800	100	1.972	0.993	99.250	1.787	3.633	363.300
7900	100	1.449	1.711	171.050	2.182	1.985	198.450
8000	100	0.709	1.079	107.900	2.970	2.576	257.600
8100	100	0.722	0.716	71.550	3.781	3.376	337.550
8200	100	0.951	0.837	83.650	3.225	3.503	350.300
8300	100	0.834	0.893	89.250	4.712	3.969	396.850
8400	100	0.794	0.814	81.400	3.590	4.151	415.100
8500	100	0.502	0.648	64.800	4.257	3.924	392.350
8600	100	0.263	0.383	38.250	5.075	4.666	466.600
8700	100	0.222	0.243	24.250	5.260	5.168	516.750

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
8800	100	0.108	0.165	16.500	5.882	5.571	557.100
8900	100	0.026	0.067	6.700	6.145	6.014	601.350
9000	100	0.041	0.034	3.350	8.639	7.392	739.200
9100	100	0.062	0.052	5.150	5.174	6.907	690.650
9200	100	0.083	0.073	7.250	5.014	5.094	509.400
9300	100	0.106	0.095	9.450	4.793	4.904	490.350
9314	14	0.109	0.108	1.505	4.818	4.806	67.277
Total				**10219.505**			**48258.827**
						Earthwork in Cutting	**10219.505**
						Earthwork in Filling	**48258.827**
						Net quantity of Earthwork	**38039.322**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK							
RAMPUR MINOR 2 (0.000 TO 3.800 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	1.859	0.930	92.950	2.905	1.453	145.250
200	100	1.960	1.910	190.950	2.366	2.636	263.550
300	100	2.342	2.151	215.100	1.725	2.046	204.550
400	100	2.361	2.352	235.150	1.955	1.840	184.000
500	100	1.797	2.079	207.900	3.329	2.642	264.200
600	100	1.769	1.783	178.300	1.676	2.503	250.250
700	100	1.353	1.561	156.100	3.731	2.704	270.350
800	100	0.838	1.096	109.550	4.333	4.032	403.200
900	100	0.531	0.685	68.450	5.396	4.865	486.450
1000	100	0.359	0.445	44.500	6.038	5.717	571.700
1100	100	0.125	0.242	24.200	6.480	6.259	625.900
1200	100	0.047	0.086	8.600	7.005	6.743	674.250
1300	100	0.000	0.024	2.350	8.496	7.751	775.050
1400	100	0.000	0.000	0.000	9.183	8.840	883.950
1500	100	1.937	0.969	96.850	1.884	5.534	553.350
1600	100	1.335	1.636	163.600	2.562	2.223	222.300
1700	100	0.638	0.987	98.650	4.271	3.417	341.650
1800	100	0.135	0.387	38.650	5.526	4.899	489.850
1900	100	0.000	0.068	6.750	5.816	5.671	567.100
2000	100	0.000	0.000	0.000	7.138	6.477	647.700
2100	100	0.000	0.000	0.000	9.579	8.359	835.850
2200	100	0.432	0.216	21.600	2.325	5.952	595.200
2300	100	0.151	0.292	29.150	3.054	2.690	268.950
2400	100	0.010	0.081	8.050	3.867	3.461	346.050
2500	100	0.000	0.005	0.500	4.695	4.281	428.100
2600	100	0.000	0.000	0.000	5.578	5.137	513.650
2700	100	0.000	0.000	0.000	7.138	6.358	635.800
2800	100	0.567	0.284	28.350	3.757	5.448	544.750
2900	100	0.356	0.462	46.150	2.519	3.138	313.800
3000	100	0.653	0.505	50.450	4.704	3.612	361.150
3100	100	0.414	0.534	53.350	5.333	5.019	501.850
3200	100	0.091	0.253	25.250	6.749	6.041	604.100
3300	100	0.061	0.076	7.600	7.623	7.186	718.600
3400	100	0.000	0.031	3.050	7.515	7.569	756.900

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
3500	100	0.488	0.244	24.400	3.524	5.520	551.950
3600	100	0.068	0.278	27.800	6.041	4.783	478.250
3700	100	0.185	0.127	12.650	5.222	5.632	563.150
3800	100	0.238	0.212	21.150	4.875	5.049	504.850
Total				**5298.100**			**15347.550**
						Earthwork in Cutting	**5298.100**
						Earthwork in Filling	**15347.550**
						Net quantity of Earthwork	**10049.450**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
PATHARA MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 1.494	1494	13.25	19795.50	Sqm
1.494 - 1.631	137	12.86	1761.14	Sqm
1.631 - 2.450	819	12.84	10511.87	Sqm
	TOTAL		**32068.50**	**Sqm**

DABUR MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.050	50	12.915	645.75	Sqm
0.050 - 1.200	1150.00	12.890	14823.50	Sqm
1.200 -2.042	842	12.360	10407.12	Sqm
2.042 - 3.550	1508	9.550	14401.40	Sqm
	TOTAL		**40277.77**	**Sqm**

SADOPUR MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.455	455	12.885	5862.68	Sqm
0.455 - 1.050	595.00	12.625	7511.88	Sqm
1.050 - 1.649	599	12.375	7412.63	Sqm
1.649 - 1.700	51	12.215	622.97	Sqm
1.700 - 2.450	750	9.360	7020.00	Sqm
	TOTAL		**28430.14**	**Sqm**

DHARAMPUR SUB DY.				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Perimeter (m)**	**Quantity**	
0.00 - 4.350	4350	4.77	20749.50	Sqm
4.350 - 7.000	2650	4.26	11289.00	Sqm
7.000 - 8.600	1600	3.82	6112.00	Sqm
8.600 - 9.900	1300	3.29	4277.00	Sqm
9.900 - 10.550	650	2.96	1924.00	Sqm
10.550 - 11.100	550	2.50	1375.00	Sqm
11.100 - 11.500	400	1.67	668.00	Sqm
11.500 - 11.900	400	1.27	508.00	Sqm
	TOTAL		**46902.50**	**Sqm**

ANTI MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 1.650	1650	15.30	25245.00	Sqm
1.650 - 3.109	1459	15.26	22264.34	Sqm
3.109 - 4.115	1006	14.52	14607.12	Sqm
4.115 - 4.572	457	14.26	6516.82	Sqm
4.572 - 5.000	428	14.02	6000.99	Sqm
5.000 - 5.943	943	13.62	12843.66	Sqm
5.943 - 6.200	257	13.30	3418.10	Sqm
6.200 - 6.600	400	12.76	5104.00	Sqm
6.600 - 7.160	560	9.45	5292.00	Sqm
	TOTAL		**101292.03**	**Sqm**

MARUKA MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.550	550	13.987	7692.85	Sqm
0.550 - 1.150	600.00	13.435	8061.00	Sqm
1.150 -1.890	740	13.195	9764.30	Sqm
1.890 -2.650	760	12.530	9522.80	Sqm
2.650 -3.960	1310	9.650	12641.50	Sqm
	TOTAL		**47682.45**	**Sqm**

RAMPUR MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.305	305	13.165	4015.33	Sqm
0.305 - 1.219	914.00	12.824	11721.14	Sqm
1.219 -2.438	1219	12.470	15200.93	Sqm
2.438 - 3.100	662	9.600	6355.20	Sqm
	TOTAL		**37292.59**	**Sqm**

GULAB BIGHA MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.183	183	12.640	2313.12	Sqm
0.183 - 2.130	1947	9.610	18710.67	Sqm
	TOTAL		**21023.79**	**Sqm**

MALHAD SUB DY.				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 1.925	1925	14.92	28721.00	Sqm
1.925 - 3.800	1875	14.49	27159.38	Sqm
3.800 -4.450	650	14.23	9246.25	Sqm
4.450 - 5.300	850	13.97	11871.95	Sqm
5.300 - 6.125	825	13.76	11352.83	Sqm
6.125 - 6.750	625	13.35	8340.63	Sqm
6.750 - 7.400	650	12.57	8170.50	Sqm
7.400 - 8.050	650	12.23	7949.50	Sqm
8.050 - 9.350	1300	9.45	12285.00	Sqm
	TOTAL		**125097.03**	**Sqm**

RAMPUR MR. 2				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 1.050	1050	14.16	14868.00	Sqm
1.050 - 1.650	600	13.85	8310.00	Sqm
1.650 - 2.850	1200	13.44	16122.00	Sqm
2.850 - 3.250	400	12.62	5048.00	Sqm
3.250 - 3.500	250	12.43	3107.50	Sqm
3.500 - 3.800	300	9.53	2859.00	Sqm
	TOTAL		**50314.50**	**Sqm**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF QUANTITY OF EARTHWORK FOR PATHRA MINOR						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	32068.50	Sqm	**11.80**	378549.0784
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	4112.50	Cum	**156.50**	643606.25
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1645.00	Cum	**17.22**	28322.81073
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	3398.30	Cum	**165.12**	561113.57
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1019.49	Cum	**174.89**	178298.61
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	1529.24	Cum	**217.92**	333250.89
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	849.58	Cum	**319.14**	271133.37

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	7510.80	Cum	**61.88**	464785.91
TOTAL COST OF EARTHWORK (in Rs.)						**2859060.48**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**28.591**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR DABUR MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	40277.77	Sqm	**11.80**	475454.5026
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	7800.58	Cum	**156.50**	1220789.988
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	3120.23	Cum	**17.22**	53722.6041
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	10331.00	Cum	**165.12**	1705812.99
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3099.30	Cum	**174.89**	542036.58
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	4648.95	Cum	**217.92**	1013099.18
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	2582.75	Cum	**319.14**	824258.84

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	18131.58	Cum	**61.88**	1122024.37
TOTAL COST OF EARTHWORK (in Rs.)						**6957199.05**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**69.572**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR SADOPUR MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	28430.14	Sqm	**11.80**	335600.4583
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	5954.80	Cum	**156.50**	931926.2
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	2381.92	Cum	**17.22**	41010.74124
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	8433.51	Cum	**165.12**	1392507.52
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2530.05	Cum	**174.89**	442481.10
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	3795.08	Cum	**217.92**	827023.97
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	2108.38	Cum	**319.14**	672867.79

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	14388.31	Cum	**61.88**	890382.51
TOTAL COST OF EARTHWORK (in Rs.)						**5533800.29**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**55.338**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR DHARAMPUR SUB DY.						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	46902.50	Sqm	**11.80**	553655.3986
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	18368.30	Cum	**156.50**	2874638.95
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	7347.32	Cum	**17.22**	126502.5859
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	53449.60	Cum	**165.12**	8825382.04
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	16034.88	Cum	**174.89**	2804340.16
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	24052.32	Cum	**217.92**	5241481.57
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	13362.40	Cum	**319.14**	4264476.34

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	71817.90	Cum	**61.88**	4444260.04
TOTAL COST OF EARTHWORK (in Rs.)						**29134737.09**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**291.347**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR ANTI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	101292.03	Sqm	**11.80**	1195690.595
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	18954.60	Cum	**156.50**	2966394.9
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	7581.84	Cum	**17.22**	130540.4373
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	20566.30	Cum	**165.12**	3395824.38
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	6169.89	Cum	**174.89**	1079052.06
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	9254.84	Cum	**217.92**	2016813.64
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	5141.58	Cum	**319.14**	1640882.25

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	39520.90	Cum	**61.88**	2445645.95
TOTAL COST OF EARTHWORK (in Rs.)						**14870844.21**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**148.708**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR MARUKA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	47682.45	Sqm	**11.80**	562862.2326
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	7996.20	Cum	**156.50**	1251405.3
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	3198.48	Cum	**17.22**	55069.87458
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	13149.44	Cum	**165.12**	2171182.42
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3944.83	Cum	**174.89**	689911.67
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	5917.25	Cum	**217.92**	1289486.68
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	3287.36	Cum	**319.14**	1049128.07

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	21145.64	Cum	**61.88**	1308541.78
TOTAL COST OF EARTHWORK (in Rs.)						**8377588.03**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**83.776**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR RAMPUR MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	37292.59	Sqm	**11.80**	440216.2856
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	4899.40	Cum	**156.50**	766756.1
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1959.76	Cum	**17.22**	33742.19548
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	11407.05	Cum	**165.12**	1883486.02
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3422.12	Cum	**174.89**	598493.69
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	5133.17	Cum	**217.92**	1118620.95
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	2851.76	Cum	**319.14**	910111.48

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	16306.45	Cum	**61.88**	1009081.36
TOTAL COST OF EARTHWORK (in Rs.)						**6760508.08**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**67.605**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR GULAB BIGHA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	21023.79	Sqm	**11.80**	248173.0149
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	4991.10	Cum	**156.50**	781107.15
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	1996.44	Cum	**17.22**	34373.7339
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	5203.59	Cum	**165.12**	859194.94
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1561.08	Cum	**174.89**	273016.49
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	2341.61	Cum	**217.92**	510284.36
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1300.90	Cum	**319.14**	415168.03

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	10194.69	Cum	**61.88**	630871.01
TOTAL COST OF EARTHWORK (in Rs.)						**3752188.73**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**37.522**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR MALHAD SUB DY.						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	125097.03	Sqm	**11.80**	1476694.062
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	10219.51	Cum	**156.50**	1599352.533
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	4087.80	Cum	**17.22**	70381.78867
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	38039.32	Cum	**165.12**	6280899.19
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	11411.80	Cum	**174.89**	1995809.11
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	17117.69	Cum	**217.92**	3730288.07
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	9509.83	Cum	**319.14**	3034967.31

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	48258.83	Cum	**61.88**	2986369.36
TOTAL COST OF EARTHWORK (in Rs.)						**21174761.42**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**211.748**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF QUANTITY OF EARTHWORK FOR RAMPUR MINOR 2						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	50314.50	Sqm	**11.80**	593931.9771
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	5298.10	Cum	**156.50**	829152.65
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	2119.24	Cum	**17.22**	36488.04463
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	10049.45	Cum	**165.12**	1659324.59
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3014.84	Cum	**174.89**	527264.49
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	4522.25	Cum	**217.92**	985489.26
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	2512.36	Cum	**319.14**	801795.37

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	15347.55	Cum	**61.88**	949742.38
TOTAL COST OF EARTHWORK (in Rs.)						**6383188.77**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**63.832**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR PATHRA MINOR				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***32068.50***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	4112.500	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1645	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	3398.300	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	1019.49	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	1529.24	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	849.58	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	7510.80	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR DABUR MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***40277.77***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	7800.575	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	3120.23	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	10331.000	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3099.30	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	4648.95	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	2582.75	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	18131.58	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR SADOPUR MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***28430.14***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	5954.800	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	2381.92	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	8433.513	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2530.05	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	3795.08	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	2108.38	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	14388.31	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR DHARAMPUR SUB DY.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***46902.50***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	18368.300	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	7347.32	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	53449.600	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	16034.88	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	24052.32	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	13362.40	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	71817.90	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR ANTI MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***101292.03***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	18954.600	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	7581.84	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	20566.300	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	6169.89	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	9254.84	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	5141.58	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	39520.90	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR MARUKA MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***47682.45***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	7996.200	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	3198.48	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	13149.440	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3944.83	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	5917.25	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	3287.36	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	21145.64	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR RAMPUR MINOR				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***37292.59***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	4899.400	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1959.76	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	11407.050	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3422.12	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	5133.17	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	2851.76	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	16306.45	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR GULAB BIGHA MINOR				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***21023.79***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	4991.100	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	1996.44	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	5203.585	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	1561.08	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	2341.61	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	1300.90	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	10194.69	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR MALHAD SUB DY.				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***125097.03***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	10219.505	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	4087.802	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	38039.322	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	11411.80	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	17117.69	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	9509.83	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	48258.83	Cum

S.No.	Items	No.	Quantity	Unit
DETAILS OF QUANTITIES FOR EARTH WORK FOR RAMPUR MINOR 2				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***50314.50***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	5298.100	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	2119.24	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	10049.450	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3014.84	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	4522.25	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	2512.36	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	15347.55	Cum

Fall
(Total Cost – Rs ₹ 3,43,10,681.62)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF FALLS FOR PATHRA MINOR								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.145 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	115.703	Cum	**195.20**	22585.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.32	Cum	**6381.70**	97738.10	4.96	6.89	13.78
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	62.53	Cum	**6914.20**	432379.31	25.80	26.89	53.78
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.52	Cum	**8151.40**	77611.15	5.40	3.71	7.52
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.95	MT	**73574.90**	143484.20			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	215.07	Sqm	**578.60**	124440.63			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.05	Sqm	**680.10**	4796.41			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.53	Cum	**694.61**	364.67			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.53	Cum	**1237.00**	649.43			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.53	Cum	**1377.70**	723.29			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.53	Cum	**516.50**	271.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.83	Sqm	**63.20**	305.39	0.007		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.74	Cum	**149.30**	2350.22			

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	37.495	Cum	**1075.00**	40307.37			
	Coarse Aggregates (100 Km lead)	75.086	Cum	**1398.00**	104969.76			
	Cement (30 km lead)	36.164	MT	**742.00**	26833.41			
	Boulder (60 Km lead)	0.53	Cum	**1159.00**	608.48			
	Brick (15 km lead)	423.00	No.	**3.18**	1345.14			
	Steel (30 Km lead)	1.95	MT	**742.00**	1447.03			
	TOTAL (In Rs.)				**1105565.12**			
	TOTAL (In Rs.)				**1105565.12**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	37.50	Cum	**584.64**	21921.21	2192.12		
	Coarse Aggregate	75.09	Cum	**944.26**	70900.39	7090.04		
	Boulders	0.53	Cum	**694.61**	364.67	36.47		
	Total					9318.63		
	For 1 nos. fall, Total Seigniorage charges					**9318.63**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.631 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	115.703	Cum	**195.20**	22585.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	15.32	Cum	**6381.70**	97738.10	4.96	6.89	13.78
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	62.53	Cum	**6914.20**	432379.31	25.80	26.89	53.78
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.52	Cum	**8151.40**	77611.15	5.40	3.71	7.52
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.95	MT	**73574.90**	143484.20			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	215.07	Sqm	**578.60**	124440.63			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.05	Sqm	**680.10**	4796.41			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.53	Cum	**694.61**	364.67			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.53	Cum	**1237.00**	649.43			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.53	Cum	**1377.70**	723.29			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.53	Cum	**516.50**	271.16			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	4.83	Sqm	**63.20**	305.39	0.007		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.09	Cum	**149.30**	2402.13			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	37.495	Cum	**1075.00**	40307.37			
	Coarse Aggregates (100 Km lead)	75.086	Cum	**1398.00**	104969.76			
	Cement (30 km lead)	36.164	MT	**742.00**	26833.41			
	Boulder (60 Km lead)	0.53	Cum	**1159.00**	608.48			
	Brick (15 km lead)	423.00	No.	**3.18**	1345.14			
	Steel (30 Km lead)	1.95	MT	**742.00**	1447.03			
	TOTAL (In Rs.)				**1105617.03**			
	TOTAL (In Rs.)				**1105617.03**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	37.50	Cum	**584.64**	21921.21	2192.12		
	Coarse Aggregate	75.09	Cum	**944.26**	70900.39	7090.04		
	Boulders	0.53	Cum	**694.61**	364.67	36.47		
	Total					9318.63		
	For 1 nos. fall, Total Seigniorage charges					**9318.63**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 3.292 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	44.759	Cum	**195.20**	8736.92			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.37	Cum	**6381.70**	53420.80	2.71	3.77	7.53
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.51	Cum	**6914.20**	231668.73	13.82	14.41	28.82
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.56	Cum	**8151.40**	4546.16	0.32	0.22	0.44
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.79	MT	**73574.90**	58055.86			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	137.36	Sqm	**578.60**	79476.35			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.35	Sqm	**680.10**	3635.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.09	Cum	**694.61**	62.51			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.09	Cum	**1237.00**	111.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.09	Cum	**1377.70**	123.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.09	Cum	**516.50**	46.49			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.47	Sqm	**63.20**	598.78	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.86	Cum	**149.30**	3562.32			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.392	Cum	**1075.00**	19771.51			
	Coarse Aggregates (100 Km lead)	36.790	Cum	**1398.00**	51432.13			
	Cement (30 km lead)	16.864	MT	**742.00**	12513.04			
	Boulder (60 Km lead)	0.09	Cum	**1159.00**	104.31			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.79	MT	**742.00**	585.49			
	TOTAL (In Rs.)				**540647.55**			
	TOTAL (In Rs.)				**540647.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.39	Cum	**584.64**	10752.76	1075.28		
	Coarse Aggregate	36.79	Cum	**944.26**	34739.13	3473.91		
	Boulders	0.09	Cum	**694.61**	62.51	6.25		
	Total					4555.44		
	For 1 nos. fall, Total Seigniorage charges					**4555.44**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR DABUR MINOR							
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 2.250 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	68.159	Cum	**195.20**	13304.73			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.88	Cum	**6381.70**	37528.64	1.91	2.65	5.29
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.17	Cum	**6914.20**	180924.93	10.79	11.25	22.50
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.49	Cum	**8151.40**	4033.35	0.28	0.19	0.39
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.62	MT	**73574.90**	45339.54			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	125.19	Sqm	**578.60**	72436.46			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.10	Sqm	**680.10**	5508.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.23	Cum	**694.61**	156.29			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.23	Cum	**1237.00**	278.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.23	Cum	**1377.70**	309.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.23	Cum	**516.50**	116.21			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.22	Sqm	**63.20**	519.26	0.012		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	2.01	Cum	**149.30**	299.93			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	14.091	Cum	**1075.00**	15147.99			
	Coarse Aggregates (100 Km lead)	28.187	Cum	**1398.00**	39405.77			
	Cement (30 km lead)	12.992	MT	**742.00**	9640.19			
	Boulder (60 Km lead)	0.23	Cum	**1159.00**	260.78			
	Brick (15 km lead)	486.00	No.	**3.18**	1545.48			
	Steel (30 Km lead)	0.62	MT	**742.00**	457.25			
	TOTAL (In Rs.)				**438391.30**			
	TOTAL (In Rs.)				**438391.30**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	14.09	Cum	**584.64**	8238.25	823.82		
	Coarse Aggregate	28.19	Cum	**944.26**	26616.09	2661.61		
	Boulders	0.23	Cum	**694.61**	156.29	15.63		
	Total					3501.06		
	For 1 nos. fall, Total Seigniorage charges					**3501.06**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR SADOPUR MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 1.350 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.720	Cum	**195.20**	14585.36			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.90	Cum	**6381.70**	56782.38	2.88	4.00	8.01
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.46	Cum	**6914.20**	279766.43	16.69	17.40	34.80
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4821.02	0.34	0.23	0.47
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.95	MT	**73574.90**	70109.08			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	151.50	Sqm	**578.60**	87658.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.58	Sqm	**63.20**	605.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.84	Cum	**149.30**	3410.04			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.634	Cum	**1075.00**	23256.05			
	Coarse Aggregates (100 Km lead)	43.273	Cum	**1398.00**	60495.62			
	Cement (30 km lead)	19.923	MT	**742.00**	14783.15			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.95	MT	**742.00**	707.05			
	TOTAL (In Rs.)				**635453.77**			
	TOTAL (In Rs.)				**635453.77**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.63	Cum	**584.64**	12647.83	1264.78		
	Coarse Aggregate	43.27	Cum	**944.26**	40860.94	4086.09		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					5365.46		
	For 1 nos. fall, Total Seigniorage charges					**5365.46**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 1.649 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.481	Cum	**195.20**	13757.84			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.90	Cum	**6381.70**	56782.38	2.88	4.00	8.01
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.46	Cum	**6914.20**	279766.43	16.69	17.40	34.80
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4821.02	0.34	0.23	0.47
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.95	MT	**73574.90**	70109.08			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	151.50	Sqm	**578.60**	87658.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.58	Sqm	**63.20**	605.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.72	Cum	**149.30**	3540.94			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.634	Cum	**1075.00**	23256.05			
	Coarse Aggregates (100 Km lead)	43.273	Cum	**1398.00**	60495.62			
	Cement (30 km lead)	19.923	MT	**742.00**	14783.15			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.95	MT	**742.00**	707.05			
	TOTAL (In Rs.)				**634757.15**			
	TOTAL (In Rs.)				**634757.15**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.63	Cum	**584.64**	12647.83	1264.78		
	Coarse Aggregate	43.27	Cum	**944.26**	40860.94	4086.09		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					5365.46		
	For 1 nos. fall, Total Seigniorage charges					**5365.46**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR DHARAMPUR SUB DY.							
	SHARDA TYPE FALL OF HEIGHT 1.372 METER AT CH.3.650 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	132.387	Cum	**195.20**	25841.89			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.94	Cum	**6381.70**	108093.08	5.49	7.62	15.24
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	95.51	Cum	**6914.20**	660380.37	39.40	41.07	82.14
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.14	Cum	**8151.40**	9258.77	0.64	0.44	0.90
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.25	MT	**73574.90**	165490.40			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	266.45	Sqm	**578.60**	154169.83			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.22	Sqm	**680.10**	7629.70			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.69	Cum	**694.61**	1172.15			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.69	Cum	**1237.00**	2087.44			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.69	Cum	**1377.70**	2324.87			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.69	Cum	**516.50**	871.59			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.18	Sqm	**63.20**	769.59	0.018		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.98	Cum	**149.30**	6566.02			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	49.135	Cum	**1075.00**	52819.79			
	Coarse Aggregates (100 Km lead)	98.281	Cum	**1398.00**	137396.47			
	Cement (30 km lead)	45.548	MT	**742.00**	33796.90			
	Boulder (60 Km lead)	1.69	Cum	**1159.00**	1955.81			
	Brick (15 km lead)	673.00	No.	**3.18**	2140.14			
	Steel (30 Km lead)	2.25	MT	**742.00**	1668.96			
	TOTAL (In Rs.)				**1396788.58**			
	TOTAL (In Rs.)				**1396788.58**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	49.13	Cum	**584.64**	28726.11	2872.61		
	Coarse Aggregate	98.28	Cum	**944.26**	92802.57	9280.26		
	Boulders	1.69	Cum	**694.61**	1172.15	117.22		
	Total					12270.08		
	For 1 nos. fall, Total Seigniorage charges					**12270.08**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.5.800 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	71.587	Cum	**195.20**	13973.73			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.65	Cum	**6381.70**	80702.51	4.10	5.69	11.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	55.99	Cum	**6914.20**	387108.81	23.09	24.07	48.15
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.90	Cum	**8151.40**	7325.87	0.51	0.35	0.71
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.32	MT	**73574.90**	97008.93			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	190.67	Sqm	**578.60**	110322.97			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.36	Sqm	**680.10**	6365.74			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.31	Cum	**694.61**	908.55			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.31	Cum	**1237.00**	1618.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.31	Cum	**1377.70**	1802.03			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.31	Cum	**516.50**	675.58			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.63	Sqm	**63.20**	608.90	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	17.29	Cum	**149.30**	2580.85			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	30.116	Cum	**1075.00**	32374.48			
	Coarse Aggregates (100 Km lead)	60.241	Cum	**1398.00**	84216.33			
	Cement (30 km lead)	27.716	MT	**742.00**	20565.39			
	Boulder (60 Km lead)	1.31	Cum	**1159.00**	1515.97			
	Brick (15 km lead)	561.00	No.	**3.18**	1783.98			
	Steel (30 Km lead)	1.32	MT	**742.00**	978.33			
	TOTAL (In Rs.)				**874791.75**			
	TOTAL (In Rs.)				**874791.75**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	30.12	Cum	**584.64**	17606.90	1760.69		
	Coarse Aggregate	60.24	Cum	**944.26**	56882.77	5688.28		
	Boulders	1.31	Cum	**694.61**	908.55	90.85		
	Total					7539.82		
	For 1 nos. fall, Total Seigniorage charges					**7539.82**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.6.450 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	69.583	Cum	**195.20**	13582.58			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.65	Cum	**6381.70**	80702.51	4.10	5.69	11.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	55.99	Cum	**6914.20**	387108.81	23.09	24.07	48.15
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.90	Cum	**8151.40**	7325.87	0.51	0.35	0.71
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.32	MT	**73574.90**	97008.93			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	190.67	Sqm	**578.60**	110322.97			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.36	Sqm	**680.10**	6365.74			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.31	Cum	**694.61**	908.55			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.31	Cum	**1237.00**	1618.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.31	Cum	**1377.70**	1802.03			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.31	Cum	**516.50**	675.58			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.63	Sqm	**63.20**	608.90	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.46	Cum	**149.30**	2458.07			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	30.116	Cum	**1075.00**	32374.48			
	Coarse Aggregates (100 Km lead)	60.241	Cum	**1398.00**	84216.33			
	Cement (30 km lead)	27.716	MT	**742.00**	20565.39			
	Boulder (60 Km lead)	1.31	Cum	**1159.00**	1515.97			
	Brick (15 km lead)	561.00	No.	**3.18**	1783.98			
	Steel (30 Km lead)	1.32	MT	**742.00**	978.33			
	TOTAL (In Rs.)				**874277.83**			
	TOTAL (In Rs.)				**874277.83**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	30.12	Cum	**584.64**	17606.90	1760.69		
	Coarse Aggregate	60.24	Cum	**944.26**	56882.77	5688.28		
	Boulders	1.31	Cum	**694.61**	908.55	90.85		
	Total					7539.82		
	For 1 nos. fall, Total Seigniorage charges					**7539.82**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.7.425 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	80.585	Cum	**195.20**	15730.15			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	13.05	Cum	**6381.70**	83268.79	4.23	5.87	11.74
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	61.57	Cum	**6914.20**	425713.42	25.40	26.48	52.95
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6268.59	0.44	0.30	0.61
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.45	MT	**73574.90**	106683.19			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	201.94	Sqm	**578.60**	116843.28			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.86	Sqm	**680.10**	6022.97			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.14	Cum	**694.61**	791.86			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.14	Cum	**1237.00**	1410.18			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.14	Cum	**1377.70**	1570.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.14	Cum	**516.50**	588.81			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.88	Sqm	**63.20**	498.04	0.012		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.24	Cum	**149.30**	3469.90			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	32.647	Cum	**1075.00**	35095.55			
	Coarse Aggregates (100 Km lead)	65.302	Cum	**1398.00**	91291.83			
	Cement (30 km lead)	30.073	MT	**742.00**	22314.47			
	Boulder (60 Km lead)	1.14	Cum	**1159.00**	1321.26			
	Brick (15 km lead)	531.00	No.	**3.18**	1688.58			
	Steel (30 Km lead)	1.45	MT	**742.00**	1075.90			
	TOTAL (In Rs.)				**944002.13**			
	TOTAL (In Rs.)				**944002.13**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	32.65	Cum	**584.64**	19086.76	1908.68		
	Coarse Aggregate	65.30	Cum	**944.26**	61661.82	6166.18		
	Boulders	1.14	Cum	**694.61**	791.86	79.19		
	Total					8154.04		
	For 1 nos. fall, Total Seigniorage charges					**8154.04**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.8.575 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	52.346	Cum	**195.20**	10217.87			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.15	Cum	**6381.70**	71182.70	3.61	5.02	10.04
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.23	Cum	**6914.20**	278146.25	16.59	17.30	34.60
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.66	Cum	**8151.40**	5383.43	0.37	0.26	0.52
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.95	MT	**73574.90**	69703.06			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	148.98	Sqm	**578.60**	86198.12			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.86	Sqm	**680.10**	6022.97			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.14	Cum	**694.61**	791.86			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.14	Cum	**1237.00**	1410.18			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.14	Cum	**1377.70**	1570.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.14	Cum	**516.50**	588.81			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.71	Sqm	**63.20**	423.98	0.010		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	12.61	Cum	**149.30**	1882.69			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	22.575	Cum	**1075.00**	24268.24			
	Coarse Aggregates (100 Km lead)	45.157	Cum	**1398.00**	63129.23			
	Cement (30 km lead)	20.593	MT	**742.00**	15279.74			
	Boulder (60 Km lead)	1.14	Cum	**1159.00**	1321.26			
	Brick (15 km lead)	531.00	No.	**3.18**	1688.58			
	Steel (30 Km lead)	0.95	MT	**742.00**	702.95			
	TOTAL (In Rs.)				**662267.29**			
	TOTAL (In Rs.)				**662267.29**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	22.58	Cum	**584.64**	13198.31	1319.83		
	Coarse Aggregate	45.16	Cum	**944.26**	42639.78	4263.98		
	Boulders	1.14	Cum	**694.61**	791.86	79.19		
	Total					5662.99		
	For 1 nos. fall, Total Seigniorage charges					**5662.99**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.9.250 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	52.029	Cum	**195.20**	10156.13			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.00	Cum	**6381.70**	63820.89	3.24	4.50	9.00
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	36.19	Cum	**6914.20**	250252.98	14.93	15.56	31.13
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.73	Cum	**8151.40**	5926.48	0.41	0.28	0.57
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.85	MT	**73574.90**	62713.05			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	137.86	Sqm	**578.60**	79763.68			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.10	Sqm	**680.10**	4147.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.72	Cum	**694.61**	500.12			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.72	Cum	**1237.00**	890.64			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.72	Cum	**1377.70**	991.94			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.72	Cum	**516.50**	371.88			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.26	Sqm	**63.20**	585.30	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	12.23	Cum	**149.30**	1825.88			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.347	Cum	**1075.00**	21873.32			
	Coarse Aggregates (100 Km lead)	40.702	Cum	**1398.00**	56901.13			
	Cement (30 km lead)	18.596	MT	**742.00**	13798.51			
	Boulder (60 Km lead)	0.72	Cum	**1159.00**	834.48			
	Brick (15 km lead)	365.00	No.	**3.18**	1160.70			
	Steel (30 Km lead)	0.85	MT	**742.00**	632.46			
	TOTAL (In Rs.)				**599502.29**			
	TOTAL (In Rs.)				**599502.29**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.35	Cum	**584.64**	11895.83	1189.58		
	Coarse Aggregate	40.70	Cum	**944.26**	38433.09	3843.31		
	Boulders	0.72	Cum	**694.61**	500.12	50.01		
	Total					5082.90		
	For 1 nos. fall, Total Seigniorage charges					**5082.90**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.372 METER AT CH.9.900 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	87.870	Cum	**195.20**	17152.31			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.94	Cum	**6381.70**	76223.70	3.87	5.37	10.75
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	62.25	Cum	**6914.20**	430403.50	25.68	26.77	53.53
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.87	Cum	**8151.40**	7122.82	0.50	0.34	0.69
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.47	MT	**73574.90**	107858.52			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	200.15	Sqm	**578.60**	115806.18			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.78	Sqm	**680.10**	3927.58			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.63	Cum	**694.61**	437.60			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.63	Cum	**1237.00**	779.31			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.63	Cum	**1377.70**	867.95			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.63	Cum	**516.50**	325.40			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.08	Sqm	**63.20**	700.02	0.017		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	24.22	Cum	**149.30**	3616.62			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	32.483	Cum	**1075.00**	34919.01			
	Coarse Aggregates (100 Km lead)	64.974	Cum	**1398.00**	90834.11			
	Cement (30 km lead)	30.060	MT	**742.00**	22304.34			
	Boulder (60 Km lead)	0.63	Cum	**1159.00**	730.17			
	Brick (15 km lead)	346.00	No.	**3.18**	1100.28			
	Steel (30 Km lead)	1.47	MT	**742.00**	1087.75			
	TOTAL (In Rs.)				**938551.96**			
	TOTAL (In Rs.)				**938551.96**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	32.48	Cum	**584.64**	18990.74	1899.07		
	Coarse Aggregate	64.97	Cum	**944.26**	61352.66	6135.27		
	Boulders	0.63	Cum	**694.61**	437.60	43.76		
	Total					8078.10		
	For 1 nos. fall, Total Seigniorage charges					**8078.10**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 10.825 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	57.777	Cum	**195.20**	11277.98			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.95	Cum	**6381.70**	57144.28	2.90	4.03	8.06
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	36.32	Cum	**6914.20**	251126.30	14.98	15.62	31.24
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.57	Cum	**8151.40**	4606.03	0.32	0.22	0.45
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.86	MT	**73574.90**	62931.90			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.75	Sqm	**578.60**	82597.97			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.40	Sqm	**680.10**	3670.50			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.50	Cum	**694.61**	343.83			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.50	Cum	**1237.00**	612.32			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.50	Cum	**1377.70**	681.96			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.50	Cum	**516.50**	255.67			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.54	Sqm	**63.20**	413.40	0.010		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	18.31	Cum	**149.30**	2733.63			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.868	Cum	**1075.00**	21357.68			
	Coarse Aggregates (100 Km lead)	39.741	Cum	**1398.00**	55557.74			
	Cement (30 km lead)	18.214	MT	**742.00**	13514.48			
	Boulder (60 Km lead)	0.50	Cum	**1159.00**	573.71			
	Brick (15 km lead)	323.00	No.	**3.18**	1027.14			
	Steel (30 Km lead)	0.86	MT	**742.00**	634.67			
	TOTAL (In Rs.)				**593415.99**			
	TOTAL (In Rs.)				**593415.99**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.87	Cum	**584.64**	11615.40	1161.54		
	Coarse Aggregate	39.74	Cum	**944.26**	37525.72	3752.57		
	Boulders	0.50	Cum	**694.61**	343.83	34.38		
	Total					4948.49		
	For 1 nos. fall, Total Seigniorage charges					**4948.49**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.11.750 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	36.289	Cum	**195.20**	7083.61			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.28	Cum	**6381.70**	40101.06	2.04	2.83	5.66
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.08	Cum	**6914.20**	180296.29	10.76	11.21	22.43
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.48	Cum	**8151.40**	3920.50	0.27	0.19	0.38
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.61	MT	**73574.90**	45182.00			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	112.68	Sqm	**578.60**	65194.52			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.23	Sqm	**680.10**	2875.12			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.00	Cum	**694.61**	0.00			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.00	Cum	**1237.00**	0.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.00	Cum	**1377.70**	0.00			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.00	Cum	**516.50**	0.00			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.36	Sqm	**63.20**	528.30	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.14	Cum	**149.30**	1514.52			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	14.228	Cum	**1075.00**	15295.15			
	Coarse Aggregates (100 Km lead)	28.461	Cum	**1398.00**	39788.34			
	Cement (30 km lead)	13.078	MT	**742.00**	9703.60			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	253.00	No.	**3.18**	804.54			
	Steel (30 Km lead)	0.61	MT	**742.00**	455.66			
	TOTAL (In Rs.)				**435098.01**			
	TOTAL (In Rs.)				**435098.01**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	14.23	Cum	**584.64**	8318.28	831.83		
	Coarse Aggregate	28.46	Cum	**944.26**	26874.49	2687.45		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					3519.28		
	For 1 nos. fall, Total Seigniorage charges					**3519.28**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR ANTI MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.300 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	116.542	Cum	**195.20**	22748.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.09	Cum	**6381.70**	77185.70	3.92	5.44	10.89
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	53.90	Cum	**6914.20**	372660.60	22.23	23.18	46.35
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6266.88	0.44	0.30	0.61
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.27	MT	**73574.90**	93388.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.12	Sqm	**578.60**	104796.64			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.61	Sqm	**680.10**	7895.96			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.16	Cum	**694.61**	807.48			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.16	Cum	**1237.00**	1438.01			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.16	Cum	**1377.70**	1601.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.16	Cum	**516.50**	600.43			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.89	Sqm	**63.20**	625.28	0.015		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	32.90	Cum	**149.30**	4912.05			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.919	Cum	**1075.00**	31087.49			
	Coarse Aggregates (100 Km lead)	57.845	Cum	**1398.00**	80867.15			
	Cement (30 km lead)	26.602	MT	**742.00**	19738.95			
	Boulder (60 Km lead)	1.16	Cum	**1159.00**	1347.34			
	Brick (15 km lead)	696.00	No.	**3.18**	2213.28			
	Steel (30 Km lead)	1.27	MT	**742.00**	941.82			
	TOTAL (In Rs.)				**842301.21**			
	TOTAL (In Rs.)				**842301.21**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.92	Cum	**584.64**	16906.97	1690.70		
	Coarse Aggregate	57.84	Cum	**944.26**	54620.61	5462.06		
	Boulders	1.16	Cum	**694.61**	807.48	80.75		
	Total					7233.51		
	For 1 nos. fall, Total Seigniorage charges					**7233.51**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.800 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	90.037	Cum	**195.20**	17575.27			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.09	Cum	**6381.70**	77185.70	3.92	5.44	10.89
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	53.90	Cum	**6914.20**	372660.60	22.23	23.18	46.35
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6266.88	0.44	0.30	0.61
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.27	MT	**73574.90**	93388.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.12	Sqm	**578.60**	104796.64			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.61	Sqm	**680.10**	7895.96			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.16	Cum	**694.61**	807.48			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.16	Cum	**1237.00**	1438.01			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.16	Cum	**1377.70**	1601.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.16	Cum	**516.50**	600.43			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.89	Sqm	**63.20**	625.28	0.015		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	25.80	Cum	**149.30**	3852.18			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.919	Cum	**1075.00**	31087.49			
	Coarse Aggregates (100 Km lead)	57.845	Cum	**1398.00**	80867.15			
	Cement (30 km lead)	26.602	MT	**742.00**	19738.95			
	Boulder (60 Km lead)	1.16	Cum	**1159.00**	1347.34			
	Brick (15 km lead)	696.00	No.	**3.18**	2213.28			
	Steel (30 Km lead)	1.27	MT	**742.00**	941.82			
	TOTAL (In Rs.)				**836067.66**			
	TOTAL (In Rs.)				**836067.66**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.92	Cum	**584.64**	16906.97	1690.70		
	Coarse Aggregate	57.84	Cum	**944.26**	54620.61	5462.06		
	Boulders	1.16	Cum	**694.61**	807.48	80.75		
	Total					7233.51		
	For 1 nos. fall, Total Seigniorage charges					**7233.51**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 4.115 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	99.850	Cum	**195.20**	19490.76			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.09	Cum	**6381.70**	77185.70	3.92	5.44	10.89
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	53.90	Cum	**6914.20**	372660.60	22.23	23.18	46.35
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6266.88	0.44	0.30	0.61
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.27	MT	**73574.90**	93388.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.12	Sqm	**578.60**	104796.64			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	11.61	Sqm	**680.10**	7895.96			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.16	Cum	**694.61**	807.48			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.16	Cum	**1237.00**	1438.01			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.16	Cum	**1377.70**	1601.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.16	Cum	**516.50**	600.43			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.89	Sqm	**63.20**	625.28	0.015		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	21.60	Cum	**149.30**	3225.49			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.919	Cum	**1075.00**	31087.49			
	Coarse Aggregates (100 Km lead)	57.845	Cum	**1398.00**	80867.15			
	Cement (30 km lead)	26.602	MT	**742.00**	19738.95			
	Boulder (60 Km lead)	1.16	Cum	**1159.00**	1347.34			
	Brick (15 km lead)	696.00	No.	**3.18**	2213.28			
	Steel (30 Km lead)	1.27	MT	**742.00**	941.82			
	TOTAL (In Rs.)				**837356.47**			
	TOTAL (In Rs.)				**837356.47**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.92	Cum	**584.64**	16906.97	1690.70		
	Coarse Aggregate	57.84	Cum	**944.26**	54620.61	5462.06		
	Boulders	1.16	Cum	**694.61**	807.48	80.75		
	Total					7233.51		
	For 1 nos. fall, Total Seigniorage charges					**7233.51**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 4.572 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	114.589	Cum	**195.20**	22367.76			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.47	Cum	**6381.70**	60432.50	3.07	4.26	8.52
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.42	Cum	**6914.20**	286387.19	17.09	17.81	35.62
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.64	Cum	**8151.40**	5210.21	0.36	0.25	0.50
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.98	MT	**73574.90**	71768.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	152.51	Sqm	**578.60**	88243.43			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.41	Cum	**694.61**	281.32			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.41	Cum	**1237.00**	500.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.41	Cum	**1377.70**	557.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.41	Cum	**516.50**	209.18			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.41	Sqm	**63.20**	594.62	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.95	Cum	**149.30**	4471.53			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	22.321	Cum	**1075.00**	23995.39			
	Coarse Aggregates (100 Km lead)	44.649	Cum	**1398.00**	62419.26			
	Cement (30 km lead)	20.531	MT	**742.00**	15233.64			
	Boulder (60 Km lead)	0.41	Cum	**1159.00**	469.40			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.98	MT	**742.00**	723.78			
	TOTAL (In Rs.)				**660169.41**			
	TOTAL (In Rs.)				**660169.41**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	22.32	Cum	**584.64**	13049.92	1304.99		
	Coarse Aggregate	44.65	Cum	**944.26**	42160.24	4216.02		
	Boulders	0.41	Cum	**694.61**	281.32	28.13		
	Total					5549.15		
	For 1 nos. fall, Total Seigniorage charges					**5549.15**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 5.334 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	77.737	Cum	**195.20**	15174.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.82	Cum	**6381.70**	56272.66	2.86	3.97	7.94
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.72	Cum	**6914.20**	247003.79	14.74	15.36	30.72
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4806.72	0.33	0.23	0.47
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.84	MT	**73574.90**	61898.80			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	139.03	Sqm	**578.60**	80444.76			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.41	Cum	**694.61**	281.32			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.41	Cum	**1237.00**	500.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.41	Cum	**1377.70**	557.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.41	Cum	**516.50**	209.18			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	546.28	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.85	Cum	**149.30**	3560.97			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.559	Cum	**1075.00**	21026.32			
	Coarse Aggregates (100 Km lead)	39.125	Cum	**1398.00**	54696.24			
	Cement (30 km lead)	17.940	MT	**742.00**	13311.84			
	Boulder (60 Km lead)	0.41	Cum	**1159.00**	469.40			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.84	MT	**742.00**	624.25			
	TOTAL (In Rs.)				**577688.69**			
	TOTAL (In Rs.)				**577688.69**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.56	Cum	**584.64**	11435.19	1143.52		
	Coarse Aggregate	39.12	Cum	**944.26**	36943.83	3694.38		
	Boulders	0.41	Cum	**694.61**	281.32	28.13		
	Total					4866.03		
	For 1 nos. fall, Total Seigniorage charges					**4866.03**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 5.750 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.720	Cum	**195.20**	14585.36			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.90	Cum	**6381.70**	56782.38	2.88	4.00	8.01
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.46	Cum	**6914.20**	279766.43	16.69	17.40	34.80
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4821.02	0.34	0.23	0.47
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.95	MT	**73574.90**	70109.08			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	151.50	Sqm	**578.60**	87658.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.58	Sqm	**63.20**	605.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.84	Cum	**149.30**	3410.04			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.634	Cum	**1075.00**	23256.05			
	Coarse Aggregates (100 Km lead)	43.273	Cum	**1398.00**	60495.62			
	Cement (30 km lead)	19.923	MT	**742.00**	14783.15			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.95	MT	**742.00**	707.05			
	TOTAL (In Rs.)				**635453.77**			
	TOTAL (In Rs.)				**635453.77**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.63	Cum	**584.64**	12647.83	1264.78		
	Coarse Aggregate	43.27	Cum	**944.26**	40860.94	4086.09		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					5365.46		
	For 1 nos. fall, Total Seigniorage charges					**5365.46**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.6.553 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	69.812	Cum	**195.20**	13627.22			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.65	Cum	**6381.70**	67962.46	3.45	4.79	9.58
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	56.59	Cum	**6914.20**	391302.11	23.35	24.34	48.67
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.84	Cum	**8151.40**	6815.39	0.47	0.33	0.66
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.33	MT	**73574.90**	98059.77			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	195.55	Sqm	**578.60**	113145.84			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.88	Sqm	**680.10**	4001.03			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.27	Cum	**694.61**	187.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.27	Cum	**1237.00**	333.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.27	Cum	**1377.70**	371.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.27	Cum	**516.50**	139.46			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.84	Sqm	**63.20**	874.81	0.021		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.36	Cum	**149.30**	6474.02			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	29.454	Cum	**1075.00**	31662.84			
	Coarse Aggregates (100 Km lead)	58.916	Cum	**1398.00**	82364.53			
	Cement (30 km lead)	27.290	MT	**742.00**	20249.41			
	Boulder (60 Km lead)	0.27	Cum	**1159.00**	312.93			
	Brick (15 km lead)	352.00	No.	**3.18**	1119.36			
	Steel (30 Km lead)	1.33	MT	**742.00**	988.93			
	TOTAL (In Rs.)				**851171.02**			
	TOTAL (In Rs.)				**851171.02**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	29.45	Cum	**584.64**	17219.87	1721.99		
	Coarse Aggregate	58.92	Cum	**944.26**	55631.99	5563.20		
	Boulders	0.27	Cum	**694.61**	187.54	18.75		
	Total					7303.94		
	For 1 nos. fall, Total Seigniorage charges					**7303.94**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR MARUKA MINOR							
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 0.750 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	75.744	Cum	**195.20**	14785.23			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.80	Cum	**6381.70**	62552.35	3.18	4.41	8.82
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.47	Cum	**6914.20**	328188.35	19.58	20.41	40.82
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.64	Cum	**8151.40**	5208.01	0.36	0.25	0.50
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.12	MT	**73574.90**	82243.54			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	170.90	Sqm	**578.60**	98881.37			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.32	Cum	**694.61**	218.80			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.32	Cum	**1237.00**	389.66			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.32	Cum	**1377.70**	433.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.32	Cum	**516.50**	162.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.08	Sqm	**63.20**	636.94	0.015		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.58	Cum	**149.30**	3371.31			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.070	Cum	**1075.00**	26950.59			
	Coarse Aggregates (100 Km lead)	50.147	Cum	**1398.00**	70105.53			
	Cement (30 km lead)	23.133	MT	**742.00**	17164.56			
	Boulder (60 Km lead)	0.32	Cum	**1159.00**	365.09			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	1.12	MT	**742.00**	829.42			
	TOTAL (In Rs.)				**729914.33**			
	TOTAL (In Rs.)				**729914.33**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.07	Cum	**584.64**	14657.11	1465.71		
	Coarse Aggregate	50.15	Cum	**944.26**	47351.82	4735.18		
	Boulders	0.32	Cum	**694.61**	218.80	21.88		
	Total					6222.77		
	For 1 nos. fall, Total Seigniorage charges					**6222.77**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.500 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.086	Cum	**195.20**	12899.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.49	Cum	**6381.70**	60575.82	3.08	4.27	8.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.04	Cum	**6914.20**	256081.34	15.28	15.93	31.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4966.53	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64173.63			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.19	Sqm	**578.60**	82271.58			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.12	Sqm	**63.20**	576.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	2.32	Cum	**149.30**	346.67			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.435	Cum	**1075.00**	21967.61			
	Coarse Aggregates (100 Km lead)	40.876	Cum	**1398.00**	57144.75			
	Cement (30 km lead)	18.712	MT	**742.00**	13884.57			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	647.19			
	TOTAL (In Rs.)				**596747.17**			
	TOTAL (In Rs.)				**596747.17**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11947.11	1194.71		
	Coarse Aggregate	40.88	Cum	**944.26**	38597.64	3859.76		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					5090.32		
	For 1 nos. fall, Total Seigniorage charges					**5090.32**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 2.438 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	98.348	Cum	**195.20**	19197.55			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.79	Cum	**6381.70**	68836.24	3.49	4.85	9.71
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	65.87	Cum	**6914.20**	455417.52	27.17	28.32	56.65
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	9.65	Cum	**8151.40**	78645.85	5.47	3.76	7.62
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.95	MT	**73574.90**	143141.00			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	183.66	Sqm	**578.60**	106264.36			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.34	Sqm	**680.10**	3633.77			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.29	Cum	**694.61**	200.05			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.29	Cum	**1237.00**	356.26			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.29	Cum	**1377.70**	396.78			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.29	Cum	**516.50**	148.75			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.27	Sqm	**63.20**	712.48	0.017		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.37	Cum	**149.30**	3041.71			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	36.940	Cum	**1075.00**	39709.97			
	Coarse Aggregates (100 Km lead)	73.975	Cum	**1398.00**	103417.74			
	Cement (30 km lead)	36.152	MT	**742.00**	26825.06			
	Boulder (60 Km lead)	0.29	Cum	**1159.00**	333.79			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	1.95	MT	**742.00**	1443.57			
	TOTAL (In Rs.)				**1063917.44**			
	TOTAL (In Rs.)				**1063917.44**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	36.94	Cum	**584.64**	21596.31	2159.63		
	Coarse Aggregate	73.98	Cum	**944.26**	69852.10	6985.21		
	Boulders	0.29	Cum	**694.61**	200.05	20.00		
	Total					9164.85		
	For 1 nos. fall, Total Seigniorage charges					**9164.85**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.300 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	53.644	Cum	**195.20**	10471.25			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.24	Cum	**6381.70**	52564.98	2.67	3.71	7.41
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.87	Cum	**6914.20**	227282.62	13.56	14.13	28.27
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.54	Cum	**8151.40**	4391.61	0.31	0.21	0.43
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.79	MT	**73574.90**	57890.20			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	135.91	Sqm	**578.60**	78638.77			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.14	Sqm	**680.10**	5533.29			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.12	Cum	**694.61**	83.35			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.12	Cum	**1237.00**	148.44			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.12	Cum	**1377.70**	165.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.12	Cum	**516.50**	61.98			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.86	Sqm	**63.20**	559.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.58	Cum	**149.30**	4415.80			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.052	Cum	**1075.00**	19405.46			
	Coarse Aggregates (100 Km lead)	36.109	Cum	**1398.00**	50479.77			
	Cement (30 km lead)	16.547	MT	**742.00**	12277.97			
	Boulder (60 Km lead)	0.12	Cum	**1159.00**	139.08			
	Brick (15 km lead)	488.00	No.	**3.18**	1551.84			
	Steel (30 Km lead)	0.79	MT	**742.00**	583.82			
	TOTAL (In Rs.)				**537822.62**			
	TOTAL (In Rs.)				**537822.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.05	Cum	**584.64**	10553.68	1055.37		
	Coarse Aggregate	36.11	Cum	**944.26**	34095.87	3409.59		
	Boulders	0.12	Cum	**694.61**	83.35	8.34		
	Total					4473.29		
	For 1 nos. fall, Total Seigniorage charges					**4473.29**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR RAMPUR MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 0.600 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	60.767	Cum	**195.20**	11861.77			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.41	Cum	**6381.70**	47311.58	2.40	3.34	6.67
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.99	Cum	**6914.20**	186638.98	11.13	11.61	23.21
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.51	Cum	**8151.40**	4122.98	0.29	0.20	0.40
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.64	MT	**73574.90**	46771.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.43	Sqm	**578.60**	68523.94			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.15	Sqm	**680.10**	4184.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.59	Sqm	**63.20**	542.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.13	Cum	**149.30**	2408.01			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.141	Cum	**1075.00**	16276.18			
	Coarse Aggregates (100 Km lead)	30.286	Cum	**1398.00**	42340.29			
	Cement (30 km lead)	13.837	MT	**742.00**	10266.71			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	369.00	No.	**3.18**	1173.42			
	Steel (30 Km lead)	0.64	MT	**742.00**	471.69			
	TOTAL (In Rs.)				**454632.50**			
	TOTAL (In Rs.)				**454632.50**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.14	Cum	**584.64**	8851.82	885.18		
	Coarse Aggregate	30.29	Cum	**944.26**	28598.17	2859.82		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					3752.81		
	For 1 nos. fall, Total Seigniorage charges					**3752.81**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.1.219 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	69.812	Cum	**195.20**	13627.22			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.65	Cum	**6381.70**	67962.46	3.45	4.79	9.58
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	56.59	Cum	**6914.20**	391302.11	23.35	24.34	48.67
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.84	Cum	**8151.40**	6815.39	0.47	0.33	0.66
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.33	MT	**73574.90**	98059.77			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	195.55	Sqm	**578.60**	113145.84			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.88	Sqm	**680.10**	4001.03			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.27	Cum	**694.61**	187.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.27	Cum	**1237.00**	333.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.27	Cum	**1377.70**	371.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.27	Cum	**516.50**	139.46			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.84	Sqm	**63.20**	874.81	0.021		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.36	Cum	**149.30**	6474.02			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	29.454	Cum	**1075.00**	31662.84			
	Coarse Aggregates (100 Km lead)	58.916	Cum	**1398.00**	82364.53			
	Cement (30 km lead)	27.290	MT	**742.00**	20249.41			
	Boulder (60 Km lead)	0.27	Cum	**1159.00**	312.93			
	Brick (15 km lead)	352.00	No.	**3.18**	1119.36			
	Steel (30 Km lead)	1.33	MT	**742.00**	988.93			
	TOTAL (In Rs.)				**851171.02**			
	TOTAL (In Rs.)				**851171.02**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	29.45	Cum	**584.64**	17219.87	1721.99		
	Coarse Aggregate	58.92	Cum	**944.26**	55631.99	5563.20		
	Boulders	0.27	Cum	**694.61**	187.54	18.75		
	Total					7303.94		
	For 1 nos. fall, Total Seigniorage charges					**7303.94**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.550 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	35.273	Cum	**195.20**	6885.31			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	5.80	Cum	**6381.70**	37008.78	1.88	2.61	5.22
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.21	Cum	**6914.20**	153571.85	9.16	9.55	19.10
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.45	Cum	**8151.40**	3652.36	0.25	0.17	0.35
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.52	MT	**73574.90**	38484.89			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	100.48	Sqm	**578.60**	58138.88			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.40	Sqm	**680.10**	5712.84			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.23	Cum	**694.61**	156.29			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.23	Cum	**1237.00**	278.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.23	Cum	**1377.70**	309.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.23	Cum	**516.50**	116.21			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.52	Sqm	**63.20**	475.35	0.011		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.37	Cum	**149.30**	1249.53			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	12.335	Cum	**1075.00**	13260.29			
	Coarse Aggregates (100 Km lead)	24.675	Cum	**1398.00**	34495.35			
	Cement (30 km lead)	11.306	MT	**742.00**	8389.31			
	Boulder (60 Km lead)	0.23	Cum	**1159.00**	260.78			
	Brick (15 km lead)	504.00	No.	**3.18**	1602.72			
	Steel (30 Km lead)	0.52	MT	**742.00**	388.12			
	TOTAL (In Rs.)				**375614.55**			
	TOTAL (In Rs.)				**375614.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	12.34	Cum	**584.64**	7211.62	721.16		
	Coarse Aggregate	24.67	Cum	**944.26**	23299.41	2329.94		
	Boulders	0.23	Cum	**694.61**	156.29	15.63		
	Total					3066.73		
	For 1 nos. fall, Total Seigniorage charges					**3066.73**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR GULAB BIGHA MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.000 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	53.644	Cum	**195.20**	10471.25			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.24	Cum	**6381.70**	52564.98	2.67	3.71	7.41
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.87	Cum	**6914.20**	227282.62	13.56	14.13	28.27
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.54	Cum	**8151.40**	4391.61	0.31	0.21	0.43
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.79	MT	**73574.90**	57890.20			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	135.91	Sqm	**578.60**	78638.77			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.14	Sqm	**680.10**	5533.29			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.12	Cum	**694.61**	83.35			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.12	Cum	**1237.00**	148.44			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.12	Cum	**1377.70**	165.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.12	Cum	**516.50**	61.98			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.86	Sqm	**63.20**	559.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	33.87	Cum	**149.30**	5056.23			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.052	Cum	**1075.00**	19405.46			
	Coarse Aggregates (100 Km lead)	36.109	Cum	**1398.00**	50479.77			
	Cement (30 km lead)	16.547	MT	**742.00**	12277.97			
	Boulder (60 Km lead)	0.12	Cum	**1159.00**	139.08			
	Brick (15 km lead)	488.00	No.	**3.18**	1551.84			
	Steel (30 Km lead)	0.79	MT	**742.00**	583.82			
	TOTAL (In Rs.)				**538463.05**			
	TOTAL (In Rs.)				**538463.05**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.05	Cum	**584.64**	10553.68	1055.37		
	Coarse Aggregate	36.11	Cum	**944.26**	34095.87	3409.59		
	Boulders	0.12	Cum	**694.61**	83.35	8.34		
	Total					4473.29		
	For 1 nos. fall, Total Seigniorage charges					**4473.29**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.067 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	51.901	Cum	**195.20**	10131.04			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.00	Cum	**6381.70**	51039.29	2.59	3.60	7.20
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.35	Cum	**6914.20**	182182.32	10.87	11.33	22.66
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.49	Cum	**8151.40**	4029.07	0.28	0.19	0.39
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.62	MT	**73574.90**	45654.64			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	117.57	Sqm	**578.60**	68027.53			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.78	Sqm	**680.10**	3929.62			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.05	Cum	**694.61**	34.38			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.05	Cum	**1237.00**	61.23			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.05	Cum	**1377.70**	68.20			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.05	Cum	**516.50**	25.57			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.61	Sqm	**63.20**	544.00	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.79	Cum	**149.30**	2358.07			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.122	Cum	**1075.00**	16255.97			
	Coarse Aggregates (100 Km lead)	30.249	Cum	**1398.00**	42287.56			
	Cement (30 km lead)	13.753	MT	**742.00**	10205.03			
	Boulder (60 Km lead)	0.05	Cum	**1159.00**	57.37			
	Brick (15 km lead)	346.00	No.	**3.18**	1100.28			
	Steel (30 Km lead)	0.62	MT	**742.00**	460.43			
	TOTAL (In Rs.)				**449628.99**			
	TOTAL (In Rs.)				**449628.99**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.12	Cum	**584.64**	8840.83	884.08		
	Coarse Aggregate	30.25	Cum	**944.26**	28562.55	2856.26		
	Boulders	0.05	Cum	**694.61**	34.38	3.44		
	Total					3743.78		
	For 1 nos. fall, Total Seigniorage charges					**3743.78**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR MALHAD SUB DY							
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.450 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	113.001	Cum	**195.20**	22057.82			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.57	Cum	**6381.70**	92954.24	4.72	6.55	13.11
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	86.03	Cum	**6914.20**	594799.89	35.49	36.99	73.98
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	14.86	Cum	**8151.40**	121093.12	8.42	5.79	11.74
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.70	MT	**73574.90**	198307.81			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	240.13	Sqm	**578.60**	138938.46			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.14	Cum	**694.61**	791.86			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.14	Cum	**1237.00**	1410.18			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.14	Cum	**1377.70**	1570.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.14	Cum	**516.50**	588.81			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.75	Sqm	**63.20**	426.60	0.010		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.93	Cum	**149.30**	2528.13			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	49.339	Cum	**1075.00**	53039.80			
	Coarse Aggregates (100 Km lead)	98.827	Cum	**1398.00**	138160.49			
	Cement (30 km lead)	48.638	MT	**742.00**	36089.51			
	Boulder (60 Km lead)	1.14	Cum	**1159.00**	1321.26			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	2.70	MT	**742.00**	1999.93			
	TOTAL (In Rs.)				**1425029.10**			
	TOTAL (In Rs.)				**1425029.10**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	49.34	Cum	**584.64**	28845.75	2884.58		
	Coarse Aggregate	98.83	Cum	**944.26**	93318.61	9331.86		
	Boulders	1.14	Cum	**694.61**	791.86	79.19		
	Total					12295.62		
	For 1 nos. fall, Total Seigniorage charges					**12295.62**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.075 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	78.190	Cum	**195.20**	15262.78			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.51	Cum	**6381.70**	73477.08	3.73	5.18	10.36
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	48.66	Cum	**6914.20**	336437.17	20.07	20.92	41.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.74	Cum	**8151.40**	6064.15	0.42	0.29	0.59
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.15	MT	**73574.90**	84310.69			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	168.70	Sqm	**578.60**	97609.03			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.03	Cum	**694.61**	716.84			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.03	Cum	**1237.00**	1276.58			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.03	Cum	**1377.70**	1421.79			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.03	Cum	**516.50**	533.03			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.66	Sqm	**63.20**	610.44	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	24.01	Cum	**149.30**	3584.27			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.395	Cum	**1075.00**	28374.22			
	Coarse Aggregates (100 Km lead)	52.797	Cum	**1398.00**	73809.77			
	Cement (30 km lead)	24.239	MT	**742.00**	17984.99			
	Boulder (60 Km lead)	1.03	Cum	**1159.00**	1196.09			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	1.15	MT	**742.00**	850.27			
	TOTAL (In Rs.)				**762469.82**			
	TOTAL (In Rs.)				**762469.82**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.39	Cum	**584.64**	15431.35	1543.14		
	Coarse Aggregate	52.80	Cum	**944.26**	49853.80	4985.38		
	Boulders	1.03	Cum	**694.61**	716.84	71.68		
	Total					6600.20		
	For 1 nos. fall, Total Seigniorage charges					**6600.20**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.925 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	127.471	Cum	**195.20**	24882.31			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	16.34	Cum	**6381.70**	104306.32	5.30	7.36	14.71
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	99.40	Cum	**6914.20**	687303.03	41.00	42.74	85.49
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.20	Cum	**8151.40**	156519.76	10.89	7.49	15.17
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	3.13	MT	**73574.90**	230246.38			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	259.81	Sqm	**578.60**	150325.31			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.14	Cum	**694.61**	791.86			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.14	Cum	**1237.00**	1410.18			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.14	Cum	**1377.70**	1570.58			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.14	Cum	**516.50**	588.81			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.04	Sqm	**63.20**	445.03	0.011		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	17.78	Cum	**149.30**	2654.08			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	57.588	Cum	**1075.00**	61906.72			
	Coarse Aggregates (100 Km lead)	115.367	Cum	**1398.00**	161283.50			
	Cement (30 km lead)	57.198	MT	**742.00**	42440.83			
	Boulder (60 Km lead)	1.14	Cum	**1159.00**	1321.26			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	3.13	MT	**742.00**	2322.03			
	TOTAL (In Rs.)				**1649268.62**			
	TOTAL (In Rs.)				**1649268.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	57.59	Cum	**584.64**	33668.04	3366.80		
	Coarse Aggregate	115.37	Cum	**944.26**	108936.74	10893.67		
	Boulders	1.14	Cum	**694.61**	791.86	79.19		
	Total					14339.66		
	For 1 nos. fall, Total Seigniorage charges					**14339.66**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 2.725 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	62.479	Cum	**195.20**	12195.93			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	11.51	Cum	**6381.70**	73477.08	3.73	5.18	10.36
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	49.91	Cum	**6914.20**	345083.32	20.59	21.46	42.92
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.74	Cum	**8151.40**	6064.15	0.42	0.29	0.59
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.18	MT	**73574.90**	86477.40			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	171.14	Sqm	**578.60**	99022.07			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.93	Sqm	**680.10**	6071.93			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.03	Cum	**694.61**	716.84			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.03	Cum	**1237.00**	1276.58			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.03	Cum	**1377.70**	1421.79			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.03	Cum	**516.50**	533.03			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.66	Sqm	**63.20**	610.44	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.82	Cum	**149.30**	2511.78			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.932	Cum	**1075.00**	28952.26			
	Coarse Aggregates (100 Km lead)	53.872	Cum	**1398.00**	75313.21			
	Cement (30 km lead)	24.754	MT	**742.00**	18367.73			
	Boulder (60 Km lead)	1.03	Cum	**1159.00**	1196.09			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	1.18	MT	**742.00**	872.12			
	TOTAL (In Rs.)				**773042.44**			
	TOTAL (In Rs.)				**773042.44**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.93	Cum	**584.64**	15745.72	1574.57		
	Coarse Aggregate	53.87	Cum	**944.26**	50869.28	5086.93		
	Boulders	1.03	Cum	**694.61**	716.84	71.68		
	Total					6733.18		
	For 1 nos. fall, Total Seigniorage charges					**6733.18**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.4.025 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	69.712	Cum	**195.20**	13607.87			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.79	Cum	**6381.70**	68880.70	3.50	4.86	9.71
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	42.33	Cum	**6914.20**	292650.20	17.46	18.20	36.40
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.68	Cum	**8151.40**	5529.09	0.38	0.26	0.54
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.00	MT	**73574.90**	73337.73			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	157.03	Sqm	**578.60**	90855.07			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.07	Sqm	**680.10**	6169.87			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.95	Cum	**694.61**	658.49			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.95	Cum	**1237.00**	1172.68			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.95	Cum	**1377.70**	1306.06			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.95	Cum	**516.50**	489.64			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.32	Sqm	**63.20**	588.71	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	18.02	Cum	**149.30**	2690.94			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	23.322	Cum	**1075.00**	25070.90			
	Coarse Aggregates (100 Km lead)	46.650	Cum	**1398.00**	65217.14			
	Cement (30 km lead)	21.355	MT	**742.00**	15845.50			
	Boulder (60 Km lead)	0.95	Cum	**1159.00**	1098.73			
	Brick (15 km lead)	544.00	No.	**3.18**	1729.92			
	Steel (30 Km lead)	1.00	MT	**742.00**	739.61			
	TOTAL (In Rs.)				**678816.25**			
	TOTAL (In Rs.)				**678816.25**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	23.32	Cum	**584.64**	13634.84	1363.48		
	Coarse Aggregate	46.65	Cum	**944.26**	44050.03	4405.00		
	Boulders	0.95	Cum	**694.61**	658.49	65.85		
	Total					5834.34		
	For 1 nos. fall, Total Seigniorage charges					**5834.34**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 5.300 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	39.017	Cum	**195.20**	7616.14			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.04	Cum	**6381.70**	57691.43	2.93	4.07	8.14
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.75	Cum	**6914.20**	205726.46	12.27	12.79	25.59
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.60	Cum	**8151.40**	4925.20	0.34	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.70	MT	**73574.90**	51554.76			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.27	Sqm	**578.60**	68430.30			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.91	Sqm	**680.10**	4019.39			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.54	Cum	**694.61**	375.09			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.54	Cum	**1237.00**	667.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.54	Cum	**1377.70**	743.96			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.54	Cum	**516.50**	278.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.84	Sqm	**63.20**	558.96	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	7.97	Cum	**149.30**	1189.36			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.098	Cum	**1075.00**	18380.36			
	Coarse Aggregates (100 Km lead)	34.202	Cum	**1398.00**	47814.48			
	Cement (30 km lead)	15.558	MT	**742.00**	11544.38			
	Boulder (60 Km lead)	0.54	Cum	**1159.00**	625.86			
	Brick (15 km lead)	354.00	No.	**3.18**	1125.72			
	Steel (30 Km lead)	0.70	MT	**742.00**	519.93			
	TOTAL (In Rs.)				**494966.07**			
	TOTAL (In Rs.)				**494966.07**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.10	Cum	**584.64**	9996.18	999.62		
	Coarse Aggregate	34.20	Cum	**944.26**	32295.64	3229.56		
	Boulders	0.54	Cum	**694.61**	375.09	37.51		
	Total					4266.69		
	For 1 nos. fall, Total Seigniorage charges					**4266.69**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 5.900 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	37.508	Cum	**195.20**	7321.57			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.04	Cum	**6381.70**	57691.43	2.93	4.07	8.14
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.95	Cum	**6914.20**	207079.13	12.35	12.88	25.76
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.60	Cum	**8151.40**	4925.20	0.34	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.71	MT	**73574.90**	51893.74			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.98	Sqm	**578.60**	68841.44			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.91	Sqm	**680.10**	4019.39			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.54	Cum	**694.61**	375.09			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.54	Cum	**1237.00**	667.98			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.54	Cum	**1377.70**	743.96			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.54	Cum	**516.50**	278.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.84	Sqm	**63.20**	558.96	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.34	Cum	**149.30**	1244.87			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.182	Cum	**1075.00**	18470.79			
	Coarse Aggregates (100 Km lead)	34.370	Cum	**1398.00**	48049.69			
	Cement (30 km lead)	15.639	MT	**742.00**	11604.26			
	Boulder (60 Km lead)	0.54	Cum	**1159.00**	625.86			
	Brick (15 km lead)	354.00	No.	**3.18**	1125.72			
	Steel (30 Km lead)	0.71	MT	**742.00**	523.35			
	TOTAL (In Rs.)				**497218.74**			
	TOTAL (In Rs.)				**497218.74**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.18	Cum	**584.64**	10045.36	1004.54		
	Coarse Aggregate	34.37	Cum	**944.26**	32454.51	3245.45		
	Boulders	0.54	Cum	**694.61**	375.09	37.51		
	Total					4287.50		
	For 1 nos. fall, Total Seigniorage charges					**4287.50**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 6.750 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.086	Cum	**195.20**	12899.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.49	Cum	**6381.70**	60575.82	3.08	4.27	8.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.04	Cum	**6914.20**	256081.34	15.28	15.93	31.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4966.53	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64173.63			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.19	Sqm	**578.60**	82271.58			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.12	Sqm	**63.20**	576.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	26.33	Cum	**149.30**	3930.46			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.435	Cum	**1075.00**	21967.61			
	Coarse Aggregates (100 Km lead)	40.876	Cum	**1398.00**	57144.75			
	Cement (30 km lead)	18.712	MT	**742.00**	13884.57			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	647.19			
	TOTAL (In Rs.)				**600330.97**			
	TOTAL (In Rs.)				**600330.97**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11947.11	1194.71		
	Coarse Aggregate	40.88	Cum	**944.26**	38597.64	3859.76		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					5090.32		
	For 1 nos. fall, Total Seigniorage charges					**5090.32**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 7.775 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	44.759	Cum	**195.20**	8736.92			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.37	Cum	**6381.70**	53420.80	2.71	3.77	7.53
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.51	Cum	**6914.20**	231668.73	13.82	14.41	28.82
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.56	Cum	**8151.40**	4546.16	0.32	0.22	0.44
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.79	MT	**73574.90**	58055.86			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	137.36	Sqm	**578.60**	79476.35			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.35	Sqm	**680.10**	3635.81			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.09	Cum	**694.61**	62.51			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.09	Cum	**1237.00**	111.33			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.09	Cum	**1377.70**	123.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.09	Cum	**516.50**	46.49			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.47	Sqm	**63.20**	598.78	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.86	Cum	**149.30**	3562.32			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.392	Cum	**1075.00**	19771.51			
	Coarse Aggregates (100 Km lead)	36.790	Cum	**1398.00**	51432.13			
	Cement (30 km lead)	16.864	MT	**742.00**	12513.04			
	Boulder (60 Km lead)	0.09	Cum	**1159.00**	104.31			
	Brick (15 km lead)	320.00	No.	**3.18**	1017.60			
	Steel (30 Km lead)	0.79	MT	**742.00**	585.49			
	TOTAL (In Rs.)				**540647.55**			
	TOTAL (In Rs.)				**540647.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.39	Cum	**584.64**	10752.76	1075.28		
	Coarse Aggregate	36.79	Cum	**944.26**	34739.13	3473.91		
	Boulders	0.09	Cum	**694.61**	62.51	6.25		
	Total					4555.44		
	For 1 nos. fall, Total Seigniorage charges					**4555.44**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST OF RAMPUR MR-2							
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.500 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.086	Cum	**195.20**	12899.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.49	Cum	**6381.70**	60575.82	3.08	4.27	8.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.04	Cum	**6914.20**	256081.34	15.28	15.93	31.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4966.53	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64173.63			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.19	Sqm	**578.60**	82271.58			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.12	Sqm	**63.20**	576.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	2.32	Cum	**149.30**	346.67			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.435	Cum	**1075.00**	21967.61			
	Coarse Aggregates (100 Km lead)	40.876	Cum	**1398.00**	57144.75			
	Cement (30 km lead)	18.712	MT	**742.00**	13884.57			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	647.19			
	TOTAL (In Rs.)				**596747.17**			
	TOTAL (In Rs.)				**596747.17**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11947.11	1194.71		
	Coarse Aggregate	40.88	Cum	**944.26**	38597.64	3859.76		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					5090.32		
	For 1 nos. fall, Total Seigniorage charges					**5090.32**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 2.125 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	55.000	Cum	**195.20**	10736.00			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.49	Cum	**6381.70**	60575.82	3.08	4.27	8.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.04	Cum	**6914.20**	256081.34	15.28	15.93	31.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4966.53	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64173.63			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.19	Sqm	**578.60**	82271.58			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.12	Sqm	**63.20**	576.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	26.00	Cum	**149.30**	3881.80			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.435	Cum	**1075.00**	21967.61			
	Coarse Aggregates (100 Km lead)	40.876	Cum	**1398.00**	57144.75			
	Cement (30 km lead)	18.712	MT	**742.00**	13884.57			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	647.19			
	TOTAL (In Rs.)				**598118.36**			
	TOTAL (In Rs.)				**598118.36**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11947.11	1194.71		
	Coarse Aggregate	40.88	Cum	**944.26**	38597.64	3859.76		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					5090.32		
	For 1 nos. fall, Total Seigniorage charges					**5090.32**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 2.775 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	77.737	Cum	**195.20**	15174.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.82	Cum	**6381.70**	56272.66	2.86	3.97	7.94
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.72	Cum	**6914.20**	247003.79	14.74	15.36	30.72
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4806.72	0.33	0.23	0.47
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.84	MT	**73574.90**	61898.80			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	139.03	Sqm	**578.60**	80444.76			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.41	Cum	**694.61**	281.32			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.41	Cum	**1237.00**	500.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.41	Cum	**1377.70**	557.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.41	Cum	**516.50**	209.18			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.64	Sqm	**63.20**	546.28	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.85	Cum	**149.30**	3560.97			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.559	Cum	**1075.00**	21026.32			
	Coarse Aggregates (100 Km lead)	39.125	Cum	**1398.00**	54696.24			
	Cement (30 km lead)	17.940	MT	**742.00**	13311.84			
	Boulder (60 Km lead)	0.41	Cum	**1159.00**	469.40			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.84	MT	**742.00**	624.25			
	TOTAL (In Rs.)				**577688.69**			
	TOTAL (In Rs.)				**577688.69**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.56	Cum	**584.64**	11435.19	1143.52		
	Coarse Aggregate	39.12	Cum	**944.26**	36943.83	3694.38		
	Boulders	0.41	Cum	**694.61**	281.32	28.13		
	Total					4866.03		
	For 1 nos. fall, Total Seigniorage charges					**4866.03**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	WELL TYPE FALL AT CH.1.250 KM							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	215.875	Cum	**195.20**	42138.85			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	27.07	Cum	**6381.70**	172776.46	8.77	12.18	24.37
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.25	Cum	**6914.20**	326673.06	19.49	20.32	40.63
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.08	MT	**73574.90**	226415.80			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	339.19	Sqm	**578.60**	196255.34			
7	Providing 1000 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	20.00	RM	**6002.82**	120056.40			
8	Labour for laying 1000 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	20.00	RM	**1713.33**	34266.61			
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	77.90	Sqm	**149.30**	11629.76			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	32.499	Cum	**1075.00**	34936.70			
	Coarse Aggregates (100 Km lead)	64.999	Cum	**1398.00**	90867.92			
	Cement (30 km lead)	28.261	MT	**742.00**	20969.77			
	Steel (30 Km lead)	3.08	MT	**742.00**	2283.39			
	Hume Pipe (30 km Lead)	20.00	RM	**919.00**	18380.00			
	TOTAL (In Rs.)				**1298870.88**			
	TOTAL (In Rs.)				**1298870.88**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	32.50	Cum	**584.64**	19000.37	1900.04		
	Coarse Aggregate	65.00	Cum	**944.26**	61375.50	6137.55		
	Total					8037.59		
	Total Seigniorage charges					**8037.59**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF FALLS FOR SADOPUR MINOR							
	WELL TYPE FALL AT CH.0.150 KM							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	261.861	Cum	**195.20**	51115.20			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	36.39	Cum	**6381.70**	232233.32	11.79	16.38	32.75
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	44.97	Cum	**6914.20**	310901.20	18.55	19.34	38.67
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.02	MT	**73574.90**	221991.37			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	352.27	Sqm	**578.60**	203823.54			
7	Providing 1000 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**6002.82**	180084.60			
8	Labour for laying 1000 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
9	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1220.80			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	92.96	Sqm	**149.30**	13878.90			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	35.711	Cum	**1075.00**	38389.26			
	Coarse Aggregates (100 Km lead)	71.422	Cum	**1398.00**	99847.79			
	Cement (30 km lead)	30.339	MT	**742.00**	22511.42			
	Steel (30 Km lead)	3.02	MT	**742.00**	2238.77			
	Hume Pipe (30 km Lead)	30.00	RM	**919.00**	27570.00			
	TOTAL (In Rs.)				**1457206.10**			
	TOTAL (In Rs.)				**1457206.10**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	35.71	Cum	**584.64**	20878.04	2087.80		
	Coarse Aggregate	71.42	Cum	**944.26**	67440.83	6744.08		
	Total					8831.89		
	Total Seigniorage charges					**8831.89**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF FALLS FOR PATHRA MINOR							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.145 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.15*	*1.718*	*1.764*	*6.946*	*Cum*
	Section 2-2	*2*	*3.00*	*1.690*	*1.764*	*17.887*	*Cum*
	Section 3-3	*2*	*4.20*	*1.570*	*1.564*	*20.626*	*Cum*
	Section 5-5	*2*	*2.41*	*1.868*	*1.764*	*15.856*	*Cum*
	Section 6-6	*2*	*0.63*	*1.050*	*1.564*	*2.069*	*Cum*
	U/S Key Floor	*1*	*0.82*	*5.500*	*0.450*	*2.030*	*Cum*
	U/S Floor	*1*	*2.25*	*5.500*	*1.814*	*22.448*	*Cum*
	D/S Floor	*1*	*3.00*	*5.500*	*0.900*	*14.850*	*Cum*
		1	*4.50*	*1.600*	*0.700*	*5.040*	*Cum*
	D/S Key Floor	*1*	*0.63*	*5.500*	*0.850*	*2.922*	*Cum*
	Toe Wall D/S Portion	*1*	*5.70*	*0.750*	*0.900*	*3.848*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.75*	*0.900*	*0.750*	*1.181*	*Cum*
						115.70	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.600*	*0.150*	*0.13*	*Cum*
		1	*0.76*	*1.600*	*0.150*	*0.18*	*Cum*
		1	*4.60*	*1.600*	*0.150*	*1.10*	*Cum*
		1	*0.35*	*1.600*	*0.150*	*0.08*	*Cum*
		1	*3.14*	*1.600*	*0.150*	*0.75*	*Cum*
		1	*0.78*	*1.600*	*0.150*	*0.19*	*Cum*
		1	*0.54*	*1.600*	*0.150*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.15*	*1.718*	*0.150*	*0.59*	*Cum*
	Section 2-2	*2*	*3.00*	*1.690*	*0.300*	*3.04*	*Cum*
	Section 3-3	*2*	*4.20*	*1.570*	*0.300*	*3.96*	*Cum*
	Section 5-5	*2*	*2.41*	*1.868*	*0.150*	*1.35*	*Cum*
	Section 6-6	*2*	*0.63*	*1.050*	*0.150*	*0.20*	*Cum*
	Toe Wall D/S Portion	*1*	*5.70*	*0.750*	*0.300*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.40*	*0.450*	*0.600*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.75*	*0.900*	*0.150*	*0.24*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**15.32**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.00*	*0.450*	*0.450*	*0.40*	*Cum*
		2	*1.00*	*0.934*	*1.614*	*3.00*	*Cum*
		2	*1.00*	*1.568*	*0.550*	*1.72*	*Cum*
	Section 2-2	*2*	*3.00*	*0.820*	*0.500*	*2.46*	*Cum*
		2	*3.00*	*1.030*	*0.700*	*4.33*	*Cum*
		2	*3.00*	*1.390*	*1.000*	*8.34*	*Cum*
	Section 3-3	*2*	*3.90*	*0.820*	*0.500*	*3.20*	*Cum*
		2	*3.90*	*0.970*	*0.500*	*3.78*	*Cum*
		2	*3.90*	*1.270*	*1.200*	*11.89*	*Cum*
	Section 5-5	*2*	*2.36*	*0.450*	*0.450*	*0.96*	*Cum*
		2	*2.36*	*0.934*	*1.614*	*7.12*	*Cum*
		2	*2.36*	*1.568*	*0.550*	*4.07*	*Cum*
	Section 6-6	*2*	*1.34*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.34*	*0.600*	*0.500*	*0.80*	*Cum*
		2	*1.34*	*0.900*	*0.500*	*1.21*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*5.500*	*0.300*	*-2.71*	*Cum*
	Floor	*1*	*0.61*	*1.600*	*0.650*	*0.64*	*Cum*
		1	*5.25*	*1.600*	*0.550*	*4.62*	*Cum*
		1	*0.28*	*1.600*	*0.250*	*0.11*	*Cum*
		1	*0.20*	*1.600*	*0.400*	*0.13*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*4.30*	*1.600*	*0.500*	*3.44*	*Cum*
		1	*0.63*	*1.600*	*0.700*	*0.70*	*Cum*
	Crest	*1*	*0.90*	*1.600*	*1.239*	*1.78*	*Cum*
	TOTAL					**62.53**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.600*	*0.150*	*0.17*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*5.37*	*0.450*	*0.050*	*0.12*	*Cum*
	On Abutment Top (Right Side)	*1*	*5.37*	*0.450*	*0.050*	*0.12*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.40*	*5.500*	*0.328*	*4.33*	*Cum*
	Wearing coat	*1*	*2.40*	*4.500*	*0.070*	*0.76*	*Cum*
	Dirt wall	*2*	*0.40*	*5.500*	*0.300*	*1.32*	*Cum*
	300 mm thick pedastal	*2*	*0.82*	*5.500*	*0.300*	*2.71*	*Cum*
	TOTAL					**9.52**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.86*		*1.578*	*139.9*	*Kg*
a2	*10*	*12*	*5.90*		*0.616*	*43.6*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.78*		*0.616*	*32.6*	*Kg*
a5	*10*	*8*	*5.80*		*0.616*	*28.6*	*Kg*
x1	*12*	*42*	*2.50*		*0.888*	*93.2*	*Kg*
x2	*16*	*42*	*1.27*		*1.578*	*83.8*	*Kg*
x3	*12*	*24*	*2.30*		*0.888*	*49.0*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**62.53**	**0.003**	**0.188**	**7850.0**	**1472.7**	**Kg**
	Total Reinforcement Steel (in kg)					*1950.2*	*Kg*
	Total Weight in Metric Tonne					**1.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.00*		*0.450*	*1.79*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.00*		*1.614*	*6.43*	*Sqm*
		4		*0.934*	*1.614*	*6.03*	*Sqm*
		4	*1.00*		*0.550*	*2.19*	*Sqm*
		4		*1.568*	*0.550*	*3.45*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*1.030*	*0.700*	*2.88*	*Sqm*
		4	*3.00*		*1.000*	*12.00*	*Sqm*
		4		*1.390*	*1.000*	*5.56*	*Sqm*
	Section 3-3	*4*	*3.90*		*0.500*	*7.80*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.90*		*0.500*	*7.80*	*Sqm*
		4		*0.970*	*0.500*	*1.94*	*Sqm*
		4	*3.90*		*1.200*	*18.72*	*Sqm*
		4		*1.270*	*1.200*	*6.10*	*Sqm*
	Section 5-5	*4*	*2.36*		*0.450*	*4.25*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.36*		*1.614*	*15.25*	*Sqm*
		4		*0.934*	*1.614*	*6.03*	*Sqm*
		4	*2.36*		*0.550*	*5.20*	*Sqm*
		4		*1.568*	*0.550*	*3.45*	*Sqm*
	Section 6-6	*4*	*1.34*		*0.450*	*2.41*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.34*		*0.500*	*2.68*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.34*		*0.500*	*2.68*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.61*		*0.650*	*0.80*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.600*	*0.650*	*2.08*	*Sqm*
		2	*5.25*		*0.550*	*5.78*	*Sqm*
		2		*1.600*	*0.550*	*1.76*	*Sqm*
		2	*0.28*		*0.250*	*0.14*	*Sqm*
		2		*1.600*	*0.250*	*0.80*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.600*	*0.400*	*1.28*	*Sqm*
		2	*4.30*		*0.500*	*4.30*	*Sqm*
		2		*1.600*	*0.500*	*1.60*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.600*	*0.700*	*2.24*	*Sqm*
	Crest	*2*	*0.90*		*1.239*	*2.23*	*Sqm*
		2		*1.600*	*1.239*	*3.96*	*Sqm*
	Bridge Slab	*2*	*2.40*		*0.33*	*1.57*	*Sqm*
		2		*5.50*	*0.33*	*3.61*	*Sqm*
		1	*2.40*	*5.50*		*13.20*	*Sqm*
	Dirt Wall	*2*	*0.40*		*0.30*	*0.24*	*Sqm*
		2		5.50	0.30	*3.30*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.70*		*0.300*	*3.42*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.40*		*0.600*	*6.48*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.900*	*0.150*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**215.07**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.015*		*7.05*	*Sqm*
	TOTAL					**7.05**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.000*	*0.300*	**0.53**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.000*	*0.150*	**0.53**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*5.37*	*0.450*		*2.42*	*Sqm*
	On Abutment Top (Right Side)	*1*	*5.37*	*0.450*		*2.42*	*Sqm*
	TOTAL					**4.83**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Floor	1		3.629		3.63	*Cum*
	Abutment						
	Section 1-1	2	1.15	*0.741*		*1.699*	*Cum*
	Section 2-2	2	3.00	*0.353*		*2.118*	*Cum*
	Section 3-3	2	4.20	*0.280*		*2.352*	*Cum*
	Section 5-5	2	2.41	*0.741*		*3.566*	*Cum*
	Section 6-6	2	0.63	*0.280*		*0.353*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.70*	*0.150*	*0.600*	*1.710*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**15.74**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.631 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.15*	*1.718*	*1.764*	*6.946*	*Cum*
	Section 2-2	*2*	*3.00*	*1.690*	*1.764*	*17.887*	*Cum*
	Section 3-3	*2*	*4.20*	*1.570*	*1.564*	*20.626*	*Cum*
	Section 5-5	*2*	*2.41*	*1.868*	*1.764*	*15.856*	*Cum*
	Section 6-6	*2*	*0.63*	*1.050*	*1.564*	*2.069*	*Cum*
	U/S Key Floor	*1*	*0.82*	*5.500*	*0.450*	*2.030*	*Cum*
	U/S Floor	*1*	*2.25*	*5.500*	*1.814*	*22.448*	*Cum*
	D/S Floor	*1*	*3.00*	*5.500*	*0.900*	*14.850*	*Cum*
		1	*4.50*	*1.600*	*0.700*	*5.040*	*Cum*
	D/S Key Floor	*1*	*0.63*	*5.500*	*0.850*	*2.922*	*Cum*
	Toe Wall D/S Portion	*1*	*5.70*	*0.750*	*0.900*	*3.848*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.75*	*0.900*	*0.750*	*1.181*	*Cum*
						115.70	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.600*	*0.150*	*0.13*	*Cum*
		1	*0.76*	*1.600*	*0.150*	*0.18*	*Cum*
		1	*4.60*	*1.600*	*0.150*	*1.10*	*Cum*
		1	*0.35*	*1.600*	*0.150*	*0.08*	*Cum*
		1	*3.14*	*1.600*	*0.150*	*0.75*	*Cum*
		1	*0.78*	*1.600*	*0.150*	*0.19*	*Cum*
		1	*0.54*	*1.600*	*0.150*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.15*	*1.718*	*0.150*	*0.59*	*Cum*
	Section 2-2	*2*	*3.00*	*1.690*	*0.300*	*3.04*	*Cum*
	Section 3-3	*2*	*4.20*	*1.570*	*0.300*	*3.96*	*Cum*
	Section 5-5	*2*	*2.41*	*1.868*	*0.150*	*1.35*	*Cum*
	Section 6-6	*2*	*0.63*	*1.050*	*0.150*	*0.20*	*Cum*
	Toe Wall D/S Portion	*1*	*5.70*	*0.750*	*0.300*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.40*	*0.450*	*0.600*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.75*	*0.900*	*0.150*	*0.24*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**15.32**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.00*	*0.450*	*0.450*	*0.40*	*Cum*
		2	*1.00*	*0.934*	*1.614*	*3.00*	*Cum*
		2	*1.00*	*1.568*	*0.550*	*1.72*	*Cum*
	Section 2-2	*2*	*3.00*	*0.820*	*0.500*	*2.46*	*Cum*
		2	*3.00*	*1.030*	*0.700*	*4.33*	*Cum*
		2	*3.00*	*1.390*	*1.000*	*8.34*	*Cum*
	Section 3-3	*2*	*3.90*	*0.820*	*0.500*	*3.20*	*Cum*
		2	*3.90*	*0.970*	*0.500*	*3.78*	*Cum*
		2	*3.90*	*1.270*	*1.200*	*11.89*	*Cum*
	Section 5-5	*2*	*2.36*	*0.450*	*0.450*	*0.96*	*Cum*
		2	*2.36*	*0.934*	*1.614*	*7.12*	*Cum*
		2	*2.36*	*1.568*	*0.550*	*4.07*	*Cum*
	Section 6-6	*2*	*1.34*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.34*	*0.600*	*0.500*	*0.80*	*Cum*
		2	*1.34*	*0.900*	*0.500*	*1.21*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*5.500*	*0.300*	*-2.71*	*Cum*
	Floor	*1*	*0.61*	*1.600*	*0.650*	*0.64*	*Cum*
		1	*5.25*	*1.600*	*0.550*	*4.62*	*Cum*
		1	*0.28*	*1.600*	*0.250*	*0.11*	*Cum*
		1	*0.20*	*1.600*	*0.400*	*0.13*	*Cum*
		1	*4.30*	*1.600*	*0.500*	*3.44*	*Cum*
		1	*0.63*	*1.600*	*0.700*	*0.70*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*0.90*	*1.600*	*1.239*	*1.78*	*Cum*
	TOTAL					**62.53**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.600*	*0.150*	*0.17*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*5.37*	*0.450*	*0.050*	*0.12*	*Cum*
	On Abutment Top (Right Side)	*1*	*5.37*	*0.450*	*0.050*	*0.12*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.40*	*5.500*	*0.328*	*4.33*	*Cum*
	Wearing coat	*1*	*2.40*	*4.500*	*0.070*	*0.76*	*Cum*
	Dirt wall	*2*	*0.40*	*5.500*	*0.300*	*1.32*	*Cum*
	300 mm thick pedastal	*2*	*0.82*	*5.500*	*0.300*	*2.71*	*Cum*
	TOTAL					**9.52**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.86*		*1.578*	*139.9*	*Kg*
a2	*10*	*12*	*5.90*		*0.616*	*43.6*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.78*		*0.616*	*32.6*	*Kg*
a5	*10*	*8*	*5.80*		*0.616*	*28.6*	*Kg*
x1	*12*	*42*	*2.50*		*0.888*	*93.2*	*Kg*
x2	*16*	*42*	*1.27*		*1.578*	*83.8*	*Kg*
x3	*12*	*24*	*2.30*		*0.888*	*49.0*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**62.53**	**0.003**	**0.188**	**7850.0**	**1472.7**	**Kg**
	Total Reinforcement Steel (in kg)					*1950.2*	*Kg*
	Total Weight in Metric Tonne					**1.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.00*		*0.450*	*1.79*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.00*		*1.614*	*6.43*	*Sqm*
		4		*0.934*	*1.614*	*6.03*	*Sqm*
		4	*1.00*		*0.550*	*2.19*	*Sqm*
		4		*1.568*	*0.550*	*3.45*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*1.030*	*0.700*	*2.88*	*Sqm*
		4	*3.00*		*1.000*	*12.00*	*Sqm*
		4		*1.390*	*1.000*	*5.56*	*Sqm*
	Section 3-3	*4*	*3.90*		*0.500*	*7.80*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.90*		*0.500*	*7.80*	*Sqm*
		4		*0.970*	*0.500*	*1.94*	*Sqm*
		4	*3.90*		*1.200*	*18.72*	*Sqm*
		4		*1.270*	*1.200*	*6.10*	*Sqm*
	Section 5-5	*4*	*2.36*		*0.450*	*4.25*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.36*		*1.614*	*15.25*	*Sqm*
		4		*0.934*	*1.614*	*6.03*	*Sqm*
		4	*2.36*		*0.550*	*5.20*	*Sqm*
		4		*1.568*	*0.550*	*3.45*	*Sqm*
	Section 6-6	*4*	*1.34*		*0.450*	*2.41*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.34*		*0.500*	*2.68*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.34*		*0.500*	*2.68*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.61*		*0.650*	*0.80*	*Sqm*
		2		*1.600*	*0.650*	*2.08*	*Sqm*
		2	*5.25*		*0.550*	*5.78*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.600*	*0.550*	*1.76*	*Sqm*
		2	*0.28*		*0.250*	*0.14*	*Sqm*
		2		*1.600*	*0.250*	*0.80*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.600*	*0.400*	*1.28*	*Sqm*
		2	*4.30*		*0.500*	*4.30*	*Sqm*
		2		*1.600*	*0.500*	*1.60*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.600*	*0.700*	*2.24*	*Sqm*
	Crest	*2*	*0.90*		*1.239*	*2.23*	*Sqm*
		2		*1.600*	*1.239*	*3.96*	*Sqm*
	Bridge Slab	*2*	*2.40*		*0.33*	*1.57*	*Sqm*
		2		*5.50*	*0.33*	*3.61*	*Sqm*
		1	*2.40*	*5.50*		*13.20*	*Sqm*
	Dirt Wall	*2*	*0.40*		*0.30*	*0.24*	*Sqm*
		2		5.50	0.30	*3.30*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.70*		*0.300*	*3.42*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.40*		*0.600*	*6.48*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.900*	*0.150*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**215.07**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.015*		*7.05*	*Sqm*
	TOTAL					**7.05**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.000*	*0.300*	**0.53**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.000*	*0.150*	**0.53**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*5.37*	*0.450*		*2.42*	*Sqm*
	On Abutment Top (Right Side)	*1*	*5.37*	*0.450*		*2.42*	*Sqm*
	TOTAL					**4.83**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Floor	1		3.538		3.54	*Cum*
	Abutment						
	Section 1-1	2	1.15	*0.820*		*1.879*	*Cum*
	Section 2-2	2	3.00	*0.220*		*1.320*	*Cum*
	Section 3-3	2	4.20	*0.350*		*2.940*	*Cum*
	Section 5-5	2	2.41	*0.820*		*3.946*	*Cum*
	Section 6-6	2	0.63	*0.350*		*0.441*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.70*	*0.150*	*0.600*	*1.710*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**16.09**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 3.292 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*1.288*	*5.177*	*Cum*
	Section 2-2	*2*	*2.95*	*1.08*	*1.288*	*8.207*	*Cum*
	Section 3-3	*2*	*2.75*	*0.96*	*1.088*	*5.745*	*Cum*
	Section 5-5	*2*	*2.09*	*1.87*	*1.288*	*10.058*	*Cum*
	Section 6-6	*2*	*0.83*	*0.96*	*1.088*	*1.732*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	U/S Floor	*1*	*2.800*	*0.800*	*2.238*	*5.013*	*Cum*
	D/S Floor	*1*	*2.750*	*0.800*	*0.850*	*1.870*	*Cum*
		1	*2.950*	*0.800*	*0.650*	*1.534*	*Cum*
	D/S Key Floor	*1*	*0.700*	*0.800*	*1.150*	*0.644*	*Cum*
	Toe Wall D/S Portion	*1*	*4.450*	*0.750*	*0.900*	*3.004*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						44.76	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.782*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*0.676*	*0.80*	*1.15*	*0.62*	*Cum*
		1	*0.070*	*0.80*	*2.15*	*0.12*	*Cum*
		1	*4.150*	*0.80*	*0.15*	*0.50*	*Cum*
		1	*0.353*	*0.80*	*0.15*	*0.04*	*Cum*
		1	*1.438*	*0.80*	*0.15*	*0.17*	*Cum*
		1	*1.118*	*0.80*	*0.15*	*0.13*	*Cum*
		1	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*0.15*	*0.60*	*Cum*
	Section 2-2	*2*	*2.95*	*1.08*	*0.15*	*0.96*	*Cum*
	Section 3-3	*2*	*2.75*	*0.96*	*0.15*	*0.79*	*Cum*
	Section 5-5	*2*	*2.09*	*1.87*	*0.15*	*1.17*	*Cum*
	Section 6-6	*2*	*0.83*	*0.96*	*0.15*	*0.24*	*Cum*
	Toe Wall D/S Portion	*1*	*4.45*	*0.75*	*0.30*	*1.00*	*Cum*
	Toe Wall D/S Portion	*1*	*4.15*	*0.45*	*0.60*	*1.12*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.60*	*0.15*	*0.14*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.37**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.45*	*0.45*	*0.41*	*Cum*
		2	*1.02*	*0.94*	*1.62*	*3.08*	*Cum*
		2	*1.02*	*1.57*	*0.55*	*1.76*	*Cum*
	Section 2-2	*2*	*2.95*	*0.45*	*0.45*	*1.19*	*Cum*
		2	*2.95*	*0.62*	*0.55*	*2.00*	*Cum*
		2	*2.95*	*0.93*	*0.55*	*3.02*	*Cum*
	Section 3-3	*2*	*2.48*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.48*	*0.56*	*0.35*	*0.96*	*Cum*
		2	*2.48*	*0.81*	*0.50*	*2.01*	*Cum*
	Section 5-5	*2*	*2.04*	*0.45*	*0.45*	*0.83*	*Cum*
		2	*2.04*	*0.94*	*1.62*	*6.18*	*Cum*
		2	*2.04*	*1.57*	*0.55*	*3.53*	*Cum*
	Section 6-6	*2*	*1.30*	*0.45*	*0.45*	*0.53*	*Cum*
		2	*1.30*	*0.56*	*0.35*	*0.50*	*Cum*
		2	*1.30*	*0.81*	*0.50*	*1.05*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*1.63*	*0.80*	*0.50*	*0.65*	*Cum*
		1	*0.05*	*0.80*	*0.53*	*0.02*	*Cum*
		1	*3.87*	*0.80*	*0.55*	*1.70*	*Cum*
		1	*0.28*	*0.80*	*0.25*	*0.06*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*2.75*	*0.80*	*0.50*	*1.10*	*Cum*
		1	*0.70*	*0.80*	*1.00*	*0.56*	*Cum*
	Crest	*1*	*0.91*	*0.80*	*1.31*	*0.95*	*Cum*
	TOTAL					**33.51**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.80*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.53*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.53*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.56**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.51**	**0.30%**	**0.10**	**7850**	**789.07**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.45*	*1.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.02*		*1.62*	*6.59*	*Sqm*
		4		*0.94*	*1.62*	*6.05*	*Sqm*
		4	*1.02*		*0.55*	*2.24*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 2-2	*4*	*2.95*		*0.45*	*5.31*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.93*	*0.55*	*2.05*	*Sqm*
	Section 3-3	*4*	*2.48*		*0.45*	*4.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.48*		*0.35*	*3.47*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*2.48*		*0.50*	*4.95*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.04*		*0.45*	*3.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.04*		*1.62*	*13.22*	*Sqm*
		4		*0.94*	*1.62*	*6.05*	*Sqm*
		4	*2.04*		*0.55*	*4.50*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 6-6	*4*	*1.30*		*0.45*	*2.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.30*		*0.35*	*1.82*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.30*		*0.50*	*2.59*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*1.63*		*0.50*	*1.63*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*3.87*		*0.55*	*4.26*	*Sqm*
		2		*0.80*	*0.55*	*0.88*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*0.80*	*0.25*	*0.40*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*2.75*		*0.50*	*2.75*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*0.80*	*1.00*	*1.60*	*Sqm*
	Crest	*2*	*0.9095*		*1.307*	*2.38*	*Sqm*
		2		*0.8*	*1.307*	*2.09*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	*2*	*4.45*		*0.30*	*2.67*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.15*		*0.60*	*4.98*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**137.36**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.35*	*Sqm*
	TOTAL					**5.35**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.20*	*0.30*	**0.09**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.20*	*0.15*	**0.09**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.53*	*0.45*		*4.74*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.53*	*0.45*		*4.74*	*Sqm*
	TOTAL					**9.47**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.49		5.49	**Cum**
	Abutment						
	Section 1-1	2	*1.17*	*1.32*		*3.083*	*Cum*
	Section 2-2	2	*2.95*	*0.65*		*3.853*	*Cum*
	Section 3-3	2	*2.75*	*0.47*		*2.591*	*Cum*
	Section 5-5	2	*2.09*	*1.31*		*5.458*	*Cum*
	Section 6-6	2	*0.83*	*0.47*		*0.781*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.45*	*0.15*	*0.60*	*0.801*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**23.86**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF FALLS FOR DABUR MINOR						
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 2.250 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		68.16		**68.16**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.543*	*0.70*	*0.15*	*0.06*	*Cum*
		1	*0.559*	*0.70*	*0.15*	*0.06*	*Cum*
		1	*5.518*	*0.70*	*0.15*	*0.58*	*Cum*
		1	*0.495*	*0.70*	*0.15*	*0.05*	*Cum*
		1	*1.816*	*0.70*	*0.15*	*0.19*	*Cum*
		1	*1.118*	*0.70*	*0.15*	*0.12*	*Cum*
		1	*0.543*	*0.70*	*0.15*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.80*	*1.78*	*0.15*	*0.43*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*0.15*	*0.79*	*Cum*
	Section 3-3	*2*	*4.75*	*0.93*	*0.15*	*1.32*	*Cum*
	Section 5-5	*2*	*0.55*	*1.93*	*0.15*	*0.32*	*Cum*
	Section 6-6	*2*	*0.15*	*0.93*	*0.15*	*0.04*	*Cum*
	Toe Wall D/S Portion	*1*	*2.20*	*0.75*	*0.30*	*0.50*	*Cum*
	Toe Wall D/S Portion	*1*	*1.90*	*0.45*	*0.60*	*0.51*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.40*	*0.15*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**5.88**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.58*	*0.45*	*0.45*	*0.23*	*Cum*
		2	*0.58*	*0.97*	*1.72*	*1.92*	*Cum*
		2	*0.58*	*1.63*	*0.70*	*1.32*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.60*	*0.50*	*1.50*	*Cum*
		2	*2.50*	*0.90*	*0.70*	*3.15*	*Cum*
	Section 3-3	*2*	*4.43*	*0.45*	*0.45*	*1.80*	*Cum*
		2	*4.43*	*0.54*	*0.30*	*1.44*	*Cum*
		2	*4.43*	*0.78*	*0.55*	*3.80*	*Cum*
	Section 5-5	*2*	*0.51*	*0.45*	*0.45*	*0.21*	*Cum*
		2	*0.51*	*0.97*	*1.72*	*1.70*	*Cum*
		2	*0.51*	*1.63*	*0.70*	*1.17*	*Cum*
	Section 6-6	*2*	*0.54*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.54*	*0.54*	*0.30*	*0.17*	*Cum*
		2	*0.54*	*0.78*	*0.50*	*0.42*	*Cum*
	Floor	*1*	*0.58*	*0.70*	*0.50*	*0.20*	*Cum*
		1	*6.00*	*0.70*	*0.70*	*2.94*	*Cum*
		1	*0.42*	*0.70*	*0.35*	*0.10*	*Cum*
		1	*0.20*	*0.70*	*0.45*	*0.06*	*Cum*
		1	*1.30*	*0.70*	*0.55*	*0.50*	*Cum*
		1	*0.05*	*0.70*	*0.53*	*0.02*	*Cum*
		1	*1.95*	*0.70*	*0.50*	*0.68*	*Cum*
		1	*0.70*	*0.70*	*1.00*	*0.49*	*Cum*
	Crest	*1*	*1.08*	*0.70*	*1.45*	*1.10*	*Cum*
	TOTAL					**26.17**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.70*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	On Abutment Top (Left Side)	*1*	*9.13*	*0.45*	*0.05*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.13*	*0.45*	*0.05*	*0.21*	*Cum*
	TOTAL					**0.49**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.17**	**0.30%**	**0.08**	**7850**	**616.24**	**Kg**
	Total Weight in Metric Tonne					**0.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.58*		*0.45*	*1.04*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.58*		*1.72*	*3.98*	*Sqm*
		4		*0.97*	*1.72*	*6.65*	*Sqm*
		4	*0.58*		*0.70*	*1.62*	*Sqm*
		4		*1.63*	*0.70*	*4.57*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.50*		*0.70*	*7.00*	*Sqm*
		4		*0.90*	*0.70*	*2.52*	*Sqm*
	Section 3-3	*4*	*4.43*		*0.45*	*7.98*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*4.43*		*0.30*	*5.32*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*4.43*		*0.55*	*9.75*	*Sqm*
		4		*0.78*	*0.55*	*1.72*	*Sqm*
	Section 5-5	*4*	*0.51*		*0.45*	*0.92*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.51*		*1.72*	*3.51*	*Sqm*
		4		*0.97*	*1.72*	*6.65*	*Sqm*
		4	*0.51*		*0.70*	*1.43*	*Sqm*
		4		*1.63*	*0.70*	*4.57*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.45*	*0.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.54*		*0.30*	*0.65*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*0.54*		*0.50*	*1.08*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Floor	*2*	*0.58*		*0.50*	*0.58*	*Sqm*
		2		*0.70*	*0.50*	*0.70*	*Sqm*
		2	*6.00*		*0.70*	*8.40*	*Sqm*
		2		*0.70*	*0.70*	*0.98*	*Sqm*
		2	*0.42*		*0.35*	*0.30*	*Sqm*
		2		*0.70*	*0.35*	*0.49*	*Sqm*
		2	*0.20*		*0.45*	*0.18*	*Sqm*
		2		*0.70*	*0.45*	*0.63*	*Sqm*
		2	*1.30*		*0.55*	*1.43*	*Sqm*
		2		*0.70*	*0.55*	*0.77*	*Sqm*
		2	*0.05*		*0.53*	*0.05*	*Sqm*
		2		*0.70*	*0.53*	*0.74*	*Sqm*
		2	*1.95*		*0.50*	*1.95*	*Sqm*
		2		*0.70*	*0.50*	*0.70*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*0.70*	*1.00*	*1.40*	*Sqm*
	Crest	*2*	*1.0835*		*1.454*	*3.15*	*Sqm*
		2		*0.7*	*1.454*	*2.04*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.20*		*0.30*	*1.32*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*1.90*		*0.60*	*2.28*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*2*	*1.50*		*0.15*	*0.45*	*Sqm*
		2		*1.40*	*0.15*	*0.42*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**125.19**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.70*		*8.10*	*Sqm*
	TOTAL					**8.10**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.50*	*0.30*	**0.23**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.50*	*0.15*	**0.23**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.13*	*0.45*		*4.11*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.13*	*0.45*		*4.11*	*Sqm*
	TOTAL					**8.22**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		2.01		2.01	Cum
	TOTAL					**2.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF FALLS FOR SADOPUR MINOR						
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 1.350 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*2.239*	*9.921*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*2.239*	*15.718*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*2.039*	*7.172*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*2.239*	*20.950*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*2.039*	*6.530*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.50*	*1.000*	*2.017*	*5.043*	*Cum*
	D/S Floor	*1*	*1.69*	*1.000*	*0.850*	*1.439*	*Cum*
		1	*2.60*	*1.000*	*0.650*	*1.690*	*Cum*
	D/S Key Floor	*1*	*0.68*	*1.000*	*1.050*	*0.709*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						74.72	**Cum**
2	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.84*	*1.000*	*0.150*	*0.13*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.21*	*1.000*	*0.150*	*0.03*	*Cum*
		1	*4.32*	*1.000*	*0.150*	*0.65*	*Cum*
		1	*0.42*	*1.000*	*0.150*	*0.06*	*Cum*
		1	*1.04*	*1.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*1.000*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*0.150*	*1.05*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*0.150*	*1.40*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.90**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.07*	*0.980*	*1.767*	*3.72*	*Cum*
		2	*1.07*	*1.660*	*0.600*	*2.14*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.660*	*0.700*	*2.77*	*Cum*
		2	*3.00*	*1.020*	*0.600*	*3.67*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.34*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.34*	*0.980*	*1.767*	*8.12*	*Cum*
		2	*2.34*	*1.660*	*0.600*	*4.67*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*1.31*	*1.000*	*0.500*	*0.65*	*Cum*
		1	*4.19*	*1.000*	*0.500*	*2.10*	*Cum*
		1	*0.40*	*1.000*	*0.200*	*0.08*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.30*	*1.000*	*0.257*	*0.08*	*Cum*
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.68*	*1.000*	*0.900*	*0.61*	*Cum*
	Crest	*1*	*0.97*	*1.000*	*1.330*	*1.29*	*Cum*
	TOTAL					**40.46**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.000*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.46**	**0.00**	**0.121**	**7850.000**	**952.89**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.07*		*0.450*	*1.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.07*		*1.767*	*7.59*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*1.07*		*0.600*	*2.58*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*1.020*	*0.600*	*2.45*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.34*		*0.450*	*4.22*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.34*		*1.767*	*16.56*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*2.34*		*0.600*	*5.62*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.19*		*0.500*	*4.19*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*1.000*	*0.257*	*0.51*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*1.000*	*0.900*	*1.80*	*Sqm*
	Crest	*2*	*0.97*		*1.330*	*2.58*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.000*	*1.330*	*2.66*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**151.50**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	TOTAL					**9.58**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.055		4.05	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*1.200*		*2.938*	*Cum*
	Section 2-2	2	*3.00*	*0.771*		*4.626*	*Cum*
	Section 3-3	2	*1.68*	*0.570*		*1.910*	*Cum*
	Section 5-5	2	*2.39*	*1.200*		*5.729*	*Cum*
	Section 6-6	2	*1.53*	*0.570*		*1.739*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**22.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 1.649 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*2.085*	*9.238*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*2.085*	*14.637*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*1.885*	*6.630*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*2.085*	*19.509*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*1.885*	*6.037*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.50*	*1.000*	*2.017*	*5.043*	*Cum*
	D/S Floor	*1*	*1.69*	*1.000*	*0.850*	*1.439*	*Cum*
		1	*2.60*	*1.000*	*0.650*	*1.690*	*Cum*
	D/S Key Floor	*1*	*0.68*	*1.000*	*1.050*	*0.709*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						70.48	**Cum**
2	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.84*	*1.000*	*0.150*	*0.13*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.21*	*1.000*	*0.150*	*0.03*	*Cum*
		1	*4.32*	*1.000*	*0.150*	*0.65*	*Cum*
		1	*0.42*	*1.000*	*0.150*	*0.06*	*Cum*
		1	*1.04*	*1.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*1.000*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*0.150*	*1.05*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*0.150*	*1.40*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.90**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.07*	*0.980*	*1.767*	*3.72*	*Cum*
		2	*1.07*	*1.660*	*0.600*	*2.14*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.660*	*0.700*	*2.77*	*Cum*
		2	*3.00*	*1.020*	*0.600*	*3.67*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.34*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.34*	*0.980*	*1.767*	*8.12*	*Cum*
		2	*2.34*	*1.660*	*0.600*	*4.67*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*1.31*	*1.000*	*0.500*	*0.65*	*Cum*
		1	*4.19*	*1.000*	*0.500*	*2.10*	*Cum*
		1	*0.40*	*1.000*	*0.200*	*0.08*	*Cum*
		1	*0.30*	*1.000*	*0.257*	*0.08*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.68*	*1.000*	*0.900*	*0.61*	*Cum*
	Crest	*1*	*0.97*	*1.000*	*1.330*	*1.29*	*Cum*
	TOTAL					**40.46**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.000*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.46**	**0.00**	**0.121**	**7850.000**	**952.89**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.07*		*0.450*	*1.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.07*		*1.767*	*7.59*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*1.07*		*0.600*	*2.58*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*1.020*	*0.600*	*2.45*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.34*		*0.450*	*4.22*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.34*		*1.767*	*16.56*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*2.34*		*0.600*	*5.62*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.19*		*0.500*	*4.19*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*1.000*	*0.257*	*0.51*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*1.000*	*0.900*	*1.80*	*Sqm*
	Crest	*2*	*0.97*		*1.330*	*2.58*	*Sqm*
		2		*1.000*	*1.330*	*2.66*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**151.50**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	TOTAL					**9.58**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.510		1.51	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*1.800*		*4.406*	*Cum*
	Section 2-2	2	*3.00*	*0.395*		*2.370*	*Cum*
	Section 3-3	2	*1.68*	*0.780*		*2.613*	*Cum*
	Section 5-5	2	*2.39*	*1.800*		*8.593*	*Cum*
	Section 6-6	2	*1.53*	*0.780*		*2.379*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**23.72**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR DHARAMPUR SUB DY.						
	SHARDA TYPE FALL OF HEIGHT 1.372 METER AT CH.3.650 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.41*	*2.140*	*2.201*	*13.250*	*Cum*
	Section 2-2	*2*	*4.25*	*1.317*	*2.201*	*24.639*	*Cum*
	Section 3-3	*2*	*2.70*	*1.197*	*2.001*	*12.934*	*Cum*
	Section 5-5	*2*	*2.84*	*2.290*	*2.201*	*28.609*	*Cum*
	Section 6-6	*2*	*1.22*	*1.197*	*2.001*	*5.844*	*Cum*
	U/S Key Floor	*1*	*0.70*	*3.100*	*1.150*	*2.496*	*Cum*
	U/S Floor	*1*	*2.31*	*3.100*	*1.850*	*13.225*	*Cum*
	D/S Floor	*1*	*5.69*	*3.100*	*0.800*	*14.121*	*Cum*
		1	*3.00*	*3.100*	*0.650*	*6.045*	*Cum*
	D/S Key Floor	*1*	*0.80*	*3.100*	*1.550*	*3.844*	*Cum*
	Toe Wall D/S Portion	*1*	*7.93*	*0.750*	*0.900*	*5.355*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.25*	*0.600*	*0.750*	*2.025*	*Cum*
	TOTAL					**132.39**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.100*	*0.150*	*0.25*	*Cum*
		1	*1.12*	*3.100*	*0.150*	*0.52*	*Cum*
		1	*0.90*	*3.100*	*0.150*	*0.42*	*Cum*
		1	*0.42*	*3.100*	*0.150*	*0.20*	*Cum*
		1	*5.89*	*3.100*	*0.150*	*2.74*	*Cum*
		1	*0.57*	*3.100*	*0.150*	*0.26*	*Cum*
		1	*1.23*	*3.100*	*0.150*	*0.57*	*Cum*
		1	*1.57*	*3.100*	*0.150*	*0.73*	*Cum*
		1	*0.54*	*3.100*	*0.150*	*0.25*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.41*	*2.140*	*0.150*	*0.90*	*Cum*
	Section 2-2	*2*	*4.25*	*1.317*	*0.150*	*1.68*	*Cum*
	Section 3-3	*2*	*2.70*	*1.197*	*0.150*	*0.97*	*Cum*
	Section 5-5	*2*	*2.84*	*2.290*	*0.150*	*1.95*	*Cum*
	Section 6-6	*2*	*1.22*	*1.197*	*0.150*	*0.44*	*Cum*
	Toe Wall D/S Portion	*1*	*7.93*	*0.750*	*0.300*	*1.79*	*Cum*
	Toe Wall D/S Portion	*1*	*7.63*	*0.450*	*0.600*	*2.06*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.25*	*0.600*	*0.150*	*0.41*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.25*	*0.300*	*0.600*	*0.81*	*Cum*
	TOTAL					**16.94**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.30*	*0.450*	*0.450*	*0.53*	*Cum*
		2	*1.30*	*1.145*	*2.317*	*6.90*	*Cum*
		2	*1.30*	*1.990*	*0.850*	*4.40*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.734*	*0.945*	*5.89*	*Cum*
		2	*4.25*	*1.167*	*0.850*	*8.43*	*Cum*
	Section 3-3	*2*	*2.33*	*0.450*	*0.450*	*0.94*	*Cum*
		2	*2.33*	*0.674*	*0.745*	*2.33*	*Cum*
		2	*2.33*	*1.047*	*0.600*	*2.92*	*Cum*
	Section 5-5	*2*	*2.79*	*0.450*	*0.450*	*1.13*	*Cum*
		2	*2.79*	*1.145*	*2.317*	*14.82*	*Cum*
		2	*2.79*	*1.990*	*0.500*	*5.56*	*Cum*
	Section 6-6	*2*	*1.74*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.74*	*0.674*	*0.745*	*1.75*	*Cum*
		2	*1.74*	*1.047*	*0.500*	*1.83*	*Cum*
	Floor	*1*	*0.70*	*3.100*	*1.000*	*2.17*	*Cum*
		1	*2.00*	*3.100*	*0.500*	*3.10*	*Cum*
		1	*0.30*	*3.100*	*0.650*	*0.60*	*Cum*
		1	*5.69*	*3.100*	*0.800*	*14.12*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*3.100*	*0.500*	*0.31*	*Cum*
		1	*0.27*	*3.100*	*0.400*	*0.33*	*Cum*
		1	*2.80*	*3.100*	*0.600*	*5.21*	*Cum*
		1	*0.80*	*3.100*	*1.400*	*3.47*	*Cum*
	Crest	*1*	*1.15*	*3.100*	*1.782*	*6.33*	*Cum*
	TOTAL					**95.51**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*3.100*	*0.200*	*0.53*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.53*	*0.450*	*0.050*	*0.30*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.53*	*0.450*	*0.050*	*0.30*	*Cum*
	TOTAL					**1.14**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**95.51**	**0.00**	**0.287**	**7850.0**	**2249.28**	**Kg**
	Total Weight in Metric Tonne					**2.25**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.30*		*0.450*	*2.34*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.30*		*2.317*	*12.05*	*Sqm*
		4		*1.145*	*2.317*	*10.61*	*Sqm*
		4	*1.30*		*0.850*	*4.42*	*Sqm*
		4		*1.990*	*0.850*	*6.77*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.945*	*16.07*	*Sqm*
		4		*0.734*	*0.945*	*2.77*	*Sqm*
		4	*4.25*		*0.850*	*14.45*	*Sqm*
		4		*1.167*	*0.850*	*3.97*	*Sqm*
	Section 3-3	*4*	*2.33*		*0.450*	*4.19*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.33*		*0.745*	*6.93*	*Sqm*
		4		*0.674*	*0.745*	*2.01*	*Sqm*
		4	*2.33*		*0.600*	*5.58*	*Sqm*
		4		*1.047*	*0.600*	*2.51*	*Sqm*
	Section 5-5	*4*	*2.79*		*0.450*	*5.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.79*		*2.317*	*25.89*	*Sqm*
		4		*1.145*	*2.317*	*10.61*	*Sqm*
		4	*2.79*		*0.500*	*5.59*	*Sqm*
		4		*1.990*	*0.500*	*3.98*	*Sqm*
	Section 6-6	*4*	*1.74*		*0.450*	*3.14*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.74*		*0.745*	*5.20*	*Sqm*
		4		*0.674*	*0.745*	*2.01*	*Sqm*
		4	*1.74*		*0.500*	*3.49*	*Sqm*
		4		*1.047*	*0.500*	*2.09*	*Sqm*
	Floor	*2*	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*3.100*	*1.000*	*6.20*	*Sqm*
		2	*2.00*		*0.500*	*2.00*	*Sqm*
		2		*3.100*	*0.500*	*3.10*	*Sqm*
		2	*0.30*		*0.650*	*0.39*	*Sqm*
		2		*3.100*	*0.650*	*4.03*	*Sqm*
		2	*5.69*		*0.800*	*9.11*	*Sqm*
		2		*3.100*	*0.800*	*4.96*	*Sqm*
		2	*0.20*		*0.500*	*0.20*	*Sqm*
		2		*3.100*	*0.500*	*3.10*	*Sqm*
		2	*0.27*		*0.400*	*0.22*	*Sqm*
		2		*3.100*	*0.400*	*2.48*	*Sqm*
		2	*2.8*		*0.600*	*3.36*	*Sqm*
		2		*3.1*	*0.600*	*3.72*	*Sqm*
		2	*0.80*		*1.400*	*2.24*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*3.100*	*1.400*	*8.68*	*Sqm*
	Crest	*2*	*1.15*		*1.782*	*4.08*	*Sqm*
		2		*3.100*	*1.782*	*11.05*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.93*		*0.300*	*4.76*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.63*		*0.600*	*9.16*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.25*		*0.150*	*1.35*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.25*		*0.600*	*5.40*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**266.45**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.25*	*2.493*		*11.22*	*Sqm*
	TOTAL					**11.22**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.25*	*2.500*	*0.300*	**1.69**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.25*	*2.500*	*0.150*	**1.69**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.53*	*0.450*		*6.09*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.53*	*0.450*		*6.09*	*Sqm*
	TOTAL					**12.18**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		20.772		20.77	Cum
	Abutment						
	Section 1-1	2	*1.41*	*0.920*		*2.588*	*Cum*
	Section 2-2	2	*4.25*	*0.900*		*7.650*	*Cum*
	Section 3-3	2	*2.70*	*0.671*		*3.624*	*Cum*
	Section 5-5	2	*2.84*	*0.867*		*4.921*	*Cum*
	Section 6-6	2	*1.22*	*0.671*		*1.638*	*Cum*
	Toe wall	2	*7.93*	*0.150*	*0.600*	*2.380*	*Cum*
		2	*2.25*	0.150	*0.600*	*0.405*	*Cum*
	TOTAL					**43.98**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.5.800 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.21*	*1.814*	*1.583*	*6.926*	*Cum*
	Section 2-2	*2*	*3.25*	*1.266*	*1.583*	*13.027*	*Cum*
	Section 3-3	*2*	*1.45*	*1.146*	*1.383*	*4.596*	*Cum*
	Section 5-5	*2*	*2.73*	*1.964*	*1.583*	*16.947*	*Cum*
	Section 6-6	*2*	*1.14*	*1.146*	*1.383*	*3.626*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.780*	*0.850*	*1.477*	*Cum*
	U/S Floor	*1*	*1.34*	*2.780*	*1.383*	*5.152*	*Cum*
	D/S Floor	*1*	*4.41*	*2.780*	*0.675*	*8.275*	*Cum*
		1	*1.75*	*2.780*	*0.525*	*2.554*	*Cum*
	D/S Key Floor	*1*	*0.70*	*2.780*	*1.150*	*2.238*	*Cum*
	Toe Wall D/S Portion	*1*	*7.36*	*0.750*	*0.900*	*4.968*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
	TOTAL					**71.59**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.780*	*0.150*	*0.23*	*Cum*
		1	*0.78*	*2.780*	*0.150*	*0.33*	*Cum*
		1	*0.32*	*2.780*	*0.150*	*0.13*	*Cum*
		1	*0.07*	*2.780*	*0.150*	*0.03*	*Cum*
		1	*4.63*	*2.780*	*0.150*	*1.93*	*Cum*
		1	*0.35*	*2.780*	*0.150*	*0.15*	*Cum*
		1	*0.32*	*2.780*	*0.150*	*0.13*	*Cum*
		1	*1.12*	*2.780*	*0.150*	*0.47*	*Cum*
		1	*0.54*	*2.780*	*0.150*	*0.23*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.21*	*1.814*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.25*	*1.266*	*0.150*	*1.23*	*Cum*
	Section 3-3	*2*	*1.45*	*1.146*	*0.150*	*0.50*	*Cum*
	Section 5-5	*2*	*2.73*	*1.964*	*0.150*	*1.61*	*Cum*
	Section 6-6	*2*	*1.14*	*1.146*	*0.150*	*0.39*	*Cum*
	Toe Wall D/S Portion	*1*	*7.36*	*0.750*	*0.300*	*1.66*	*Cum*
	Toe Wall D/S Portion	*1*	*7.06*	*0.450*	*0.600*	*1.91*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**12.65**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.06*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.06*	*0.982*	*1.774*	*3.68*	*Cum*
		2	*1.06*	*1.664*	*0.700*	*2.46*	*Cum*
	Section 2-2	*2*	*3.25*	*0.450*	*0.450*	*1.32*	*Cum*
		2	*3.25*	*0.708*	*0.860*	*3.96*	*Cum*
		2	*3.25*	*1.116*	*0.700*	*5.08*	*Cum*
	Section 3-3	*2*	*1.10*	*0.450*	*0.450*	*0.45*	*Cum*
		2	*1.10*	*0.648*	*0.660*	*0.94*	*Cum*
		2	*1.10*	*0.996*	*0.550*	*1.21*	*Cum*
	Section 5-5	*2*	*2.68*	*0.450*	*0.450*	*1.09*	*Cum*
		2	*2.68*	*0.982*	*1.774*	*9.34*	*Cum*
		2	*2.68*	*1.664*	*0.500*	*4.46*	*Cum*
	Section 6-6	*2*	*1.64*	*0.450*	*0.450*	*0.67*	*Cum*
		2	*1.64*	*0.648*	*0.660*	*1.40*	*Cum*
		2	*1.64*	*0.996*	*0.550*	*1.80*	*Cum*
	Floor	*1*	*0.63*	*2.780*	*0.700*	*1.22*	*Cum*
		1	*1.27*	*2.780*	*0.500*	*1.77*	*Cum*
		1	*0.05*	*2.780*	*0.525*	*0.07*	*Cum*
		1	*4.43*	*2.780*	*0.550*	*6.77*	*Cum*
		1	*0.20*	*2.780*	*0.400*	*0.22*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*2.780*	*0.250*	*0.14*	*Cum*
		1	*1.55*	*2.780*	*0.500*	*2.15*	*Cum*
		1	*0.70*	*2.780*	*1.000*	*1.95*	*Cum*
	Crest	*1*	*0.96*	*2.780*	*1.279*	*3.42*	*Cum*
	TOTAL					**55.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.780*	*0.200*	*0.42*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.71*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.71*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.90**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**55.99**	**0.00**	**0.168**	**7850.0**	**1318.51**	**Kg**
	Total Weight in Metric Tonne					**1.32**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.06*		*0.450*	*1.90*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.06*		*1.774*	*7.49*	*Sqm*
		4		*0.982*	*1.774*	*6.97*	*Sqm*
		4	*1.06*		*0.700*	*2.96*	*Sqm*
		4		*1.664*	*0.700*	*4.66*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.450*	*5.85*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.25*		*0.860*	*11.18*	*Sqm*
		4		*0.708*	*0.860*	*2.44*	*Sqm*
		4	*3.25*		*0.700*	*9.10*	*Sqm*
		4		*1.116*	*0.700*	*3.12*	*Sqm*
	Section 3-3	*4*	*1.10*		*0.450*	*1.98*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.10*		*0.660*	*2.91*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*1.10*		*0.550*	*2.42*	*Sqm*
		4		*0.996*	*0.550*	*2.19*	*Sqm*
	Section 5-5	*4*	*2.68*		*0.450*	*4.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.68*		*1.774*	*19.03*	*Sqm*
		4		*0.982*	*1.774*	*6.97*	*Sqm*
		4	*2.68*		*0.500*	*5.36*	*Sqm*
		4		*1.664*	*0.500*	*3.33*	*Sqm*
	Section 6-6	*4*	*1.64*		*0.450*	*2.96*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.64*		*0.660*	*4.33*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*1.64*		*0.550*	*3.61*	*Sqm*
		4		*0.996*	*0.550*	*2.19*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.780*	*0.700*	*3.89*	*Sqm*
		2	*1.27*		*0.500*	*1.27*	*Sqm*
		2		*2.780*	*0.500*	*2.78*	*Sqm*
		2	*0.05*		*0.525*	*0.05*	*Sqm*
		2		*2.780*	*0.525*	*2.92*	*Sqm*
		2	*4.43*		*0.550*	*4.87*	*Sqm*
		2		*2.780*	*0.550*	*3.06*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.780*	*0.400*	*2.22*	*Sqm*
		2	*0.20*		*0.250*	*0.10*	*Sqm*
		2		*2.780*	*0.250*	*1.39*	*Sqm*
		2	*1.55*		*0.500*	*1.55*	*Sqm*
		2		*2.78*	*0.500*	*2.78*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*2.780*	*1.000*	*5.56*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*0.96*		*1.279*	*2.46*	*Sqm*
		2		*2.780*	*1.279*	*7.11*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.36*		*0.300*	*4.42*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.06*		*0.600*	*8.47*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**190.67**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.340*		*9.36*	*Sqm*
	TOTAL					**9.36**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*2.180*	*0.300*	**1.31**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*2.180*	*0.150*	**1.31**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.71*	*0.450*		*4.82*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.71*	*0.450*		*4.82*	*Sqm*
	TOTAL					**9.63**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.197		6.20	Cum
	Abutment						
	Section 1-1	2	*1.21*	*0.488*		*1.177*	*Cum*
	Section 2-2	2	*3.25*	*0.486*		*3.159*	*Cum*
	Section 3-3	2	*1.45*	*0.328*		*0.950*	*Cum*
	Section 5-5	2	*2.73*	*0.456*		*2.486*	*Cum*
	Section 6-6	2	*1.14*	*0.328*		*0.750*	*Cum*
	Toe wall	2	*7.36*	*0.150*	*0.600*	*2.208*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**17.29**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.6.450 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.21*	*1.814*	*1.522*	*6.659*	*Cum*
	Section 2-2	*2*	*3.25*	*1.266*	*1.522*	*12.525*	*Cum*
	Section 3-3	*2*	*1.45*	*1.146*	*1.322*	*4.394*	*Cum*
	Section 5-5	*2*	*2.73*	*1.964*	*1.522*	*16.294*	*Cum*
	Section 6-6	*2*	*1.14*	*1.146*	*1.322*	*3.466*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.780*	*0.850*	*1.477*	*Cum*
	U/S Floor	*1*	*1.32*	*2.780*	*1.332*	*4.903*	*Cum*
	D/S Floor	*1*	*4.43*	*2.780*	*0.675*	*8.305*	*Cum*
		1	*1.75*	*2.780*	*0.525*	*2.554*	*Cum*
	D/S Key Floor	*1*	*0.70*	*2.780*	*1.150*	*2.238*	*Cum*
	Toe Wall D/S Portion	*1*	*7.36*	*0.750*	*0.900*	*4.968*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
	TOTAL					**69.58**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.780*	*0.150*	*0.23*	*Cum*
		1	*0.78*	*2.780*	*0.150*	*0.33*	*Cum*
		1	*0.32*	*2.780*	*0.150*	*0.13*	*Cum*
		1	*0.07*	*2.780*	*0.150*	*0.03*	*Cum*
		1	*4.63*	*2.780*	*0.150*	*1.93*	*Cum*
		1	*0.35*	*2.780*	*0.150*	*0.15*	*Cum*
		1	*0.32*	*2.780*	*0.150*	*0.13*	*Cum*
		1	*1.12*	*2.780*	*0.150*	*0.47*	*Cum*
		1	*0.54*	*2.780*	*0.150*	*0.23*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.21*	*1.814*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.25*	*1.266*	*0.150*	*1.23*	*Cum*
	Section 3-3	*2*	*1.45*	*1.146*	*0.150*	*0.50*	*Cum*
	Section 5-5	*2*	*2.73*	*1.964*	*0.150*	*1.61*	*Cum*
	Section 6-6	*2*	*1.14*	*1.146*	*0.150*	*0.39*	*Cum*
	Toe Wall D/S Portion	*1*	*7.36*	*0.750*	*0.300*	*1.66*	*Cum*
	Toe Wall D/S Portion	*1*	*7.06*	*0.450*	*0.600*	*1.91*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**12.65**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.06*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.06*	*0.982*	*1.774*	*3.68*	*Cum*
		2	*1.06*	*1.664*	*0.700*	*2.46*	*Cum*
	Section 2-2	*2*	*3.25*	*0.450*	*0.450*	*1.32*	*Cum*
		2	*3.25*	*0.708*	*0.860*	*3.96*	*Cum*
		2	*3.25*	*1.116*	*0.700*	*5.08*	*Cum*
	Section 3-3	*2*	*1.10*	*0.450*	*0.450*	*0.45*	*Cum*
		2	*1.10*	*0.648*	*0.660*	*0.94*	*Cum*
		2	*1.10*	*0.996*	*0.550*	*1.21*	*Cum*
	Section 5-5	*2*	*2.68*	*0.450*	*0.450*	*1.09*	*Cum*
		2	*2.68*	*0.982*	*1.774*	*9.34*	*Cum*
		2	*2.68*	*1.664*	*0.500*	*4.46*	*Cum*
	Section 6-6	*2*	*1.64*	*0.450*	*0.450*	*0.67*	*Cum*
		2	*1.64*	*0.648*	*0.660*	*1.40*	*Cum*
		2	*1.64*	*0.996*	*0.550*	*1.80*	*Cum*
	Floor	*1*	*0.63*	*2.780*	*0.700*	*1.22*	*Cum*
		1	*1.27*	*2.780*	*0.500*	*1.77*	*Cum*
		1	*0.05*	*2.780*	*0.525*	*0.07*	*Cum*
		1	*4.43*	*2.780*	*0.550*	*6.77*	*Cum*
		1	*0.20*	*2.780*	*0.400*	*0.22*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*2.780*	*0.250*	*0.14*	*Cum*
		1	*1.55*	*2.780*	*0.500*	*2.15*	*Cum*
		1	*0.70*	*2.780*	*1.000*	*1.95*	*Cum*
	Crest	*1*	*0.96*	*2.780*	*1.279*	*3.42*	*Cum*
	TOTAL					**55.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.780*	*0.200*	*0.42*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.71*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.71*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.90**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**55.99**	**0.00**	**0.168**	**7850.0**	**1318.51**	**Kg**
	Total Weight in Metric Tonne					**1.32**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.06*		*0.450*	*1.90*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.06*		*1.774*	*7.49*	*Sqm*
		4		*0.982*	*1.774*	*6.97*	*Sqm*
		4	*1.06*		*0.700*	*2.96*	*Sqm*
		4		*1.664*	*0.700*	*4.66*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.450*	*5.85*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.25*		*0.860*	*11.18*	*Sqm*
		4		*0.708*	*0.860*	*2.44*	*Sqm*
		4	*3.25*		*0.700*	*9.10*	*Sqm*
		4		*1.116*	*0.700*	*3.12*	*Sqm*
	Section 3-3	*4*	*1.10*		*0.450*	*1.98*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.10*		*0.660*	*2.91*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*1.10*		*0.550*	*2.42*	*Sqm*
		4		*0.996*	*0.550*	*2.19*	*Sqm*
	Section 5-5	*4*	*2.68*		*0.450*	*4.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.68*		*1.774*	*19.03*	*Sqm*
		4		*0.982*	*1.774*	*6.97*	*Sqm*
		4	*2.68*		*0.500*	*5.36*	*Sqm*
		4		*1.664*	*0.500*	*3.33*	*Sqm*
	Section 6-6	*4*	*1.64*		*0.450*	*2.96*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.64*		*0.660*	*4.33*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*1.64*		*0.550*	*3.61*	*Sqm*
		4		*0.996*	*0.550*	*2.19*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.780*	*0.700*	*3.89*	*Sqm*
		2	*1.27*		*0.500*	*1.27*	*Sqm*
		2		*2.780*	*0.500*	*2.78*	*Sqm*
		2	*0.05*		*0.525*	*0.05*	*Sqm*
		2		*2.780*	*0.525*	*2.92*	*Sqm*
		2	*4.43*		*0.550*	*4.87*	*Sqm*
		2		*2.780*	*0.550*	*3.06*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.780*	*0.400*	*2.22*	*Sqm*
		2	*0.20*		*0.250*	*0.10*	*Sqm*
		2		*2.780*	*0.250*	*1.39*	*Sqm*
		2	*1.55*		*0.500*	*1.55*	*Sqm*
		2		*2.78*	*0.500*	*2.78*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*2.780*	*1.000*	*5.56*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*0.96*		*1.279*	*2.46*	*Sqm*
		2		*2.780*	*1.279*	*7.11*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.36*		*0.300*	*4.42*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.06*		*0.600*	*8.47*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**190.67**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.340*		*9.36*	*Sqm*
	TOTAL					**9.36**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*2.180*	*0.300*	**1.31**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*2.180*	*0.150*	**1.31**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.71*	*0.450*		*4.82*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.71*	*0.450*		*4.82*	*Sqm*
	TOTAL					**9.63**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.197		6.20	Cum
	Abutment						
	Section 1-1	2	*1.21*	*0.444*		*1.071*	*Cum*
	Section 2-2	2	*3.25*	*0.442*		*2.873*	*Cum*
	Section 3-3	2	*1.45*	*0.291*		*0.844*	*Cum*
	Section 5-5	2	*2.73*	*0.412*		*2.246*	*Cum*
	Section 6-6	2	*1.14*	*0.291*		*0.666*	*Cum*
	Toe wall	2	*7.36*	*0.150*	*0.600*	*2.208*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**16.46**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.7.425 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.27*	*1.956*	*1.686*	*8.347*	*Cum*
	Section 2-2	*2*	*4.00*	*1.224*	*1.686*	*16.509*	*Cum*
	Section 3-3	*2*	*1.70*	*1.104*	*1.486*	*5.578*	*Cum*
	Section 5-5	*2*	*2.55*	*2.106*	*1.686*	*18.087*	*Cum*
	Section 6-6	*2*	*1.08*	*1.104*	*1.486*	*3.547*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.500*	*0.850*	*1.328*	*Cum*
	U/S Floor	*1*	*1.74*	*2.500*	*1.233*	*5.348*	*Cum*
	D/S Floor	*1*	*5.27*	*2.500*	*0.750*	*9.872*	*Cum*
		1	*2.00*	*2.500*	*0.600*	*3.000*	*Cum*
	D/S Key Floor	*1*	*0.75*	*2.500*	*1.350*	*2.531*	*Cum*
	Toe Wall D/S Portion	*1*	*6.87*	*0.750*	*0.900*	*4.637*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
	TOTAL					**80.58**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.500*	*0.150*	*0.20*	*Cum*
		1	*0.78*	*2.500*	*0.150*	*0.29*	*Cum*
		1	*0.58*	*2.500*	*0.150*	*0.22*	*Cum*
		1	*0.28*	*2.500*	*0.150*	*0.11*	*Cum*
		1	*5.40*	*2.500*	*0.150*	*2.02*	*Cum*
		1	*0.57*	*2.500*	*0.150*	*0.21*	*Cum*
		1	*0.39*	*2.500*	*0.150*	*0.15*	*Cum*
		1	*1.34*	*2.500*	*0.150*	*0.50*	*Cum*
		1	*0.54*	*2.500*	*0.150*	*0.20*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.27*	*1.956*	*0.150*	*0.74*	*Cum*
	Section 2-2	*2*	*4.00*	*1.224*	*0.150*	*1.47*	*Cum*
	Section 3-3	*2*	*1.70*	*1.104*	*0.150*	*0.56*	*Cum*
	Section 5-5	*2*	*2.55*	*2.106*	*0.150*	*1.61*	*Cum*
	Section 6-6	*2*	*1.08*	*1.104*	*0.150*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.87*	*0.750*	*0.300*	*1.55*	*Cum*
	Toe Wall D/S Portion	*1*	*6.57*	*0.450*	*0.600*	*1.77*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**13.05**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.12*	*0.450*	*0.450*	*0.45*	*Cum*
		2	*1.12*	*1.053*	*2.010*	*4.72*	*Cum*
		2	*1.12*	*1.806*	*0.700*	*2.82*	*Cum*
	Section 2-2	*2*	*4.00*	*0.450*	*0.450*	*1.62*	*Cum*
		2	*4.00*	*0.687*	*0.790*	*4.34*	*Cum*
		2	*4.00*	*1.074*	*0.700*	*6.01*	*Cum*
	Section 3-3	*2*	*1.37*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.37*	*0.627*	*0.590*	*1.02*	*Cum*
		2	*1.37*	*0.954*	*0.500*	*1.31*	*Cum*
	Section 5-5	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*1.053*	*2.010*	*10.60*	*Cum*
		2	*2.50*	*1.806*	*0.500*	*4.52*	*Cum*
	Section 6-6	*2*	*1.56*	*0.450*	*0.450*	*0.63*	*Cum*
		2	*1.56*	*0.627*	*0.590*	*1.15*	*Cum*
		2	*1.56*	*0.954*	*0.500*	*1.49*	*Cum*
	Floor	*1*	*0.63*	*2.500*	*0.700*	*1.09*	*Cum*
		1	*1.54*	*2.500*	*0.500*	*1.92*	*Cum*
		1	*0.20*	*2.500*	*0.600*	*0.30*	*Cum*
		1	*5.25*	*2.500*	*0.550*	*7.21*	*Cum*
		1	*0.20*	*2.500*	*0.400*	*0.20*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.21*	*2.500*	*0.400*	*0.21*	*Cum*
		1	*1.80*	*2.500*	*0.500*	*2.25*	*Cum*
		1	*0.75*	*2.500*	*1.200*	*2.25*	*Cum*
	Crest	*1*	*1.01*	*2.500*	*1.545*	*3.89*	*Cum*
	TOTAL					**61.57**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.500*	*0.200*	*0.38*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*8.76*	*0.450*	*0.050*	*0.20*	*Cum*
	On Abutment Top (Right Side)	*1*	*8.76*	*0.450*	*0.050*	*0.20*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**61.57**	**0.00**	**0.185**	**7850.0**	**1449.99**	**Kg**
	Total Weight in Metric Tonne					**1.45**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.12*		*0.450*	*2.01*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.12*		*2.010*	*8.97*	*Sqm*
		4		*1.053*	*2.010*	*8.47*	*Sqm*
		4	*1.12*		*0.700*	*3.12*	*Sqm*
		4		*1.806*	*0.700*	*5.06*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.450*	*7.20*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.00*		*0.790*	*12.64*	*Sqm*
		4		*0.687*	*0.790*	*2.17*	*Sqm*
		4	*4.00*		*0.700*	*11.20*	*Sqm*
		4		*1.074*	*0.700*	*3.01*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.450*	*2.47*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.37*		*0.590*	*3.24*	*Sqm*
		4		*0.627*	*0.590*	*1.48*	*Sqm*
		4	*1.37*		*0.500*	*2.75*	*Sqm*
		4		*0.954*	*0.500*	*1.91*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.450*	*4.51*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*2.010*	*20.12*	*Sqm*
		4		*1.053*	*2.010*	*8.47*	*Sqm*
		4	*2.50*		*0.500*	*5.01*	*Sqm*
		4		*1.806*	*0.500*	*3.61*	*Sqm*
	Section 6-6	*4*	*1.56*		*0.450*	*2.80*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.56*		*0.590*	*3.68*	*Sqm*
		4		*0.627*	*0.590*	*1.48*	*Sqm*
		4	*1.56*		*0.500*	*3.12*	*Sqm*
		4		*0.954*	*0.500*	*1.91*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.500*	*0.700*	*3.50*	*Sqm*
		2	*1.54*		*0.500*	*1.54*	*Sqm*
		2		*2.500*	*0.500*	*2.50*	*Sqm*
		2	*0.20*		*0.600*	*0.24*	*Sqm*
		2		*2.500*	*0.600*	*3.00*	*Sqm*
		2	*5.25*		*0.550*	*5.77*	*Sqm*
		2		*2.500*	*0.550*	*2.75*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.500*	*0.400*	*2.00*	*Sqm*
		2	*0.21*		*0.400*	*0.17*	*Sqm*
		2		*2.500*	*0.400*	*2.00*	*Sqm*
		2	*1.796*		*0.500*	*1.80*	*Sqm*
		2		*2.5*	*0.500*	*2.50*	*Sqm*
		2	*0.75*		*1.200*	*1.80*	*Sqm*
		2		*2.500*	*1.200*	*6.00*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*1.01*		*1.545*	*3.11*	*Sqm*
		2		*2.500*	*1.545*	*7.73*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.87*		*0.300*	*4.12*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.57*		*0.600*	*7.88*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**201.94**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.214*		*8.86*	*Sqm*
	TOTAL					**8.86**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.900*	*0.300*	**1.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.900*	*0.150*	**1.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*8.76*	*0.450*		*3.94*	*Sqm*
	On Abutment Top (Right Side)	*1*	*8.76*	*0.450*		*3.94*	*Sqm*
	TOTAL					**7.88**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		11.155		11.15	Cum
	Abutment						
	Section 1-1	2	*1.27*	*0.565*		*1.430*	*Cum*
	Section 2-2	2	*4.00*	*0.565*		*4.518*	*Cum*
	Section 3-3	2	*1.70*	*0.291*		*0.989*	*Cum*
	Section 5-5	2	*2.55*	*0.412*		*2.099*	*Cum*
	Section 6-6	2	*1.08*	*0.291*		*0.629*	*Cum*
	Toe wall	2	*6.87*	*0.150*	*0.600*	*2.061*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**23.24**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.8.575 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.03*	*1.590*	*1.285*	*4.212*	*Cum*
	Section 2-2	*2*	*3.00*	*1.104*	*1.285*	*8.512*	*Cum*
	Section 3-3	*2*	*1.70*	*1.104*	*1.085*	*4.073*	*Cum*
	Section 5-5	*2*	*2.62*	*1.740*	*1.285*	*11.730*	*Cum*
	Section 6-6	*2*	*1.08*	*1.104*	*1.085*	*2.590*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.500*	*0.850*	*1.328*	*Cum*
	U/S Floor	*1*	*1.04*	*2.500*	*1.233*	*3.197*	*Cum*
	D/S Floor	*1*	*3.96*	*2.500*	*0.650*	*6.440*	*Cum*
		1	*2.00*	*2.500*	*0.500*	*2.500*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.500*	*0.850*	*1.328*	*Cum*
	Toe Wall D/S Portion	*1*	*6.87*	*0.750*	*0.900*	*4.637*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
	TOTAL					**52.35**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.500*	*0.150*	*0.20*	*Cum*
		1	*0.78*	*2.500*	*0.150*	*0.29*	*Cum*
		1	*4.38*	*2.500*	*0.150*	*1.64*	*Cum*
		1	*0.28*	*2.500*	*0.150*	*0.11*	*Cum*
		1	*0.64*	*2.500*	*0.150*	*0.24*	*Cum*
		1	*0.78*	*2.500*	*0.150*	*0.29*	*Cum*
		1	*0.54*	*2.500*	*0.150*	*0.20*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.03*	*1.590*	*0.150*	*0.49*	*Cum*
	Section 2-2	*2*	*3.00*	*1.104*	*0.150*	*0.99*	*Cum*
	Section 3-3	*2*	*1.70*	*1.104*	*0.150*	*0.56*	*Cum*
	Section 5-5	*2*	*2.62*	*1.740*	*0.150*	*1.37*	*Cum*
	Section 6-6	*2*	*1.08*	*1.104*	*0.150*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.87*	*0.750*	*0.300*	*1.55*	*Cum*
	Toe Wall D/S Portion	*1*	*6.57*	*0.450*	*0.600*	*1.77*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**11.15**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.89*	*0.450*	*0.450*	*0.36*	*Cum*
		2	*0.89*	*0.870*	*1.400*	*2.17*	*Cum*
		2	*0.89*	*1.440*	*0.500*	*1.28*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.627*	*0.590*	*2.22*	*Cum*
		2	*3.00*	*0.954*	*0.500*	*2.86*	*Cum*
	Section 3-3	*2*	*1.37*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.37*	*0.627*	*0.590*	*1.02*	*Cum*
		2	*1.37*	*0.954*	*0.500*	*1.31*	*Cum*
	Section 5-5	*2*	*2.58*	*0.450*	*0.450*	*1.04*	*Cum*
		2	*2.58*	*0.870*	*1.400*	*6.28*	*Cum*
		2	*2.58*	*1.440*	*0.500*	*3.71*	*Cum*
	Section 6-6	*2*	*1.56*	*0.450*	*0.450*	*0.63*	*Cum*
		2	*1.56*	*0.627*	*0.590*	*1.15*	*Cum*
		2	*1.56*	*0.954*	*0.500*	*1.49*	*Cum*
	Floor	*1*	*0.63*	*2.500*	*0.700*	*1.09*	*Cum*
		1	*5.00*	*2.500*	*0.500*	*6.25*	*Cum*
		1	*0.20*	*2.500*	*0.400*	*0.20*	*Cum*
		1	*0.31*	*2.500*	*0.200*	*0.15*	*Cum*
		1	*1.80*	*2.500*	*0.500*	*2.25*	*Cum*
		1	*0.63*	*2.500*	*0.700*	*1.09*	*Cum*
	Crest	*1*	*0.81*	*2.500*	*0.940*	*1.90*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**40.23**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.500*	*0.200*	*0.33*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*7.45*	*0.450*	*0.050*	*0.17*	*Cum*
	On Abutment Top (Right Side)	*1*	*7.45*	*0.450*	*0.050*	*0.17*	*Cum*
	TOTAL					**0.66**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.23**	**0.00**	**0.121**	**7850.0**	**947.38**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.89*		*0.450*	*1.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.89*		*1.400*	*4.98*	*Sqm*
		4		*0.870*	*1.400*	*4.87*	*Sqm*
		4	*0.89*		*0.500*	*1.78*	*Sqm*
		4		*1.440*	*0.500*	*2.88*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.590*	*7.08*	*Sqm*
		4		*0.627*	*0.590*	*1.48*	*Sqm*
		4	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*0.954*	*0.500*	*1.91*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.450*	*2.47*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.37*		*0.590*	*3.24*	*Sqm*
		4		*0.627*	*0.590*	*1.48*	*Sqm*
		4	*1.37*		*0.500*	*2.75*	*Sqm*
		4		*0.954*	*0.500*	*1.91*	*Sqm*
	Section 5-5	*4*	*2.58*		*0.450*	*4.64*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.58*		*1.400*	*14.44*	*Sqm*
		4		*0.870*	*1.400*	*4.87*	*Sqm*
		4	*2.58*		*0.500*	*5.16*	*Sqm*
		4		*1.440*	*0.500*	*2.88*	*Sqm*
	Section 6-6	*4*	*1.56*		*0.450*	*2.80*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.56*		*0.590*	*3.68*	*Sqm*
		4		*0.627*	*0.590*	*1.48*	*Sqm*
		4	*1.56*		*0.500*	*3.12*	*Sqm*
		4		*0.954*	*0.500*	*1.91*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.500*	*0.700*	*3.50*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*2.500*	*0.500*	*2.50*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.500*	*0.400*	*2.00*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*2.500*	*0.200*	*1.00*	*Sqm*
		2	*1.796*		*0.500*	*1.80*	*Sqm*
		2		*2.5*	*0.500*	*2.50*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.500*	*0.700*	*3.50*	*Sqm*
	Crest	*2*	*0.81*		*0.940*	*1.52*	*Sqm*
		2		*2.500*	*0.940*	*4.70*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.87*		*0.300*	*4.12*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.57*		*0.600*	*7.88*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**148.98**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.214*		*8.86*	*Sqm*
	TOTAL					**8.86**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.900*	*0.300*	**1.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.900*	*0.150*	**1.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.45*	*0.450*		*3.35*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.45*	*0.450*		*3.35*	*Sqm*
	TOTAL					**6.71**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.769		2.77	Cum
	Abutment						
	Section 1-1	2	*1.03*	*0.389*		*0.801*	*Cum*
	Section 2-2	2	*3.00*	*0.386*		*2.316*	*Cum*
	Section 3-3	2	*1.70*	*0.385*		*1.309*	*Cum*
	Section 5-5	2	*2.62*	*0.412*		*2.161*	*Cum*
	Section 6-6	2	*1.08*	*0.385*		*0.832*	*Cum*
	Toe wall	2	*6.87*	*0.150*	*0.600*	*2.061*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**12.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.9.250 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.99*	*1.530*	*1.313*	*3.962*	*Cum*
	Section 2-2	*2*	*2.50*	*1.164*	*1.313*	*7.642*	*Cum*
	Section 3-3	*2*	*2.20*	*1.044*	*1.113*	*5.113*	*Cum*
	Section 5-5	*2*	*2.42*	*1.680*	*1.313*	*10.692*	*Cum*
	Section 6-6	*2*	*0.99*	*1.044*	*1.113*	*2.303*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.200*	*0.850*	*1.169*	*Cum*
	U/S Floor	*1*	*2.00*	*2.200*	*1.460*	*6.424*	*Cum*
	D/S Floor	*1*	*2.50*	*2.200*	*0.850*	*4.675*	*Cum*
		1	*2.50*	*2.200*	*0.650*	*3.575*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.200*	*0.650*	*0.894*	*Cum*
	Toe Wall D/S Portion	*1*	*6.27*	*0.750*	*0.900*	*4.232*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
	TOTAL					**52.03**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.200*	*0.150*	*0.18*	*Cum*
		1	*0.78*	*2.200*	*0.150*	*0.26*	*Cum*
		1	*3.88*	*2.200*	*0.150*	*1.28*	*Cum*
		1	*0.28*	*2.200*	*0.150*	*0.09*	*Cum*
		1	*1.14*	*2.200*	*0.150*	*0.38*	*Cum*
		1	*0.78*	*2.200*	*0.150*	*0.26*	*Cum*
		1	*0.54*	*2.200*	*0.150*	*0.18*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.99*	*1.530*	*0.150*	*0.45*	*Cum*
	Section 2-2	*2*	*2.50*	*1.164*	*0.150*	*0.87*	*Cum*
	Section 3-3	*2*	*2.20*	*1.044*	*0.150*	*0.69*	*Cum*
	Section 5-5	*2*	*2.42*	*1.680*	*0.150*	*1.22*	*Cum*
	Section 6-6	*2*	*0.99*	*1.044*	*0.150*	*0.31*	*Cum*
	Toe Wall D/S Portion	*1*	*6.27*	*0.750*	*0.300*	*1.41*	*Cum*
	Toe Wall D/S Portion	*1*	*5.97*	*0.450*	*0.600*	*1.61*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**10.00**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.84*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.84*	*0.840*	*1.300*	*1.83*	*Cum*
		2	*0.84*	*1.380*	*0.500*	*1.15*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.657*	*0.690*	*2.27*	*Cum*
		2	*2.50*	*1.014*	*0.500*	*2.54*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.597*	*0.490*	*1.11*	*Cum*
		2	*1.90*	*0.894*	*0.500*	*1.70*	*Cum*
	Section 5-5	*2*	*2.38*	*0.450*	*0.450*	*0.96*	*Cum*
		2	*2.38*	*0.840*	*1.300*	*5.20*	*Cum*
		2	*2.38*	*1.380*	*0.500*	*3.28*	*Cum*
	Section 6-6	*2*	*1.51*	*0.450*	*0.450*	*0.61*	*Cum*
		2	*1.51*	*0.597*	*0.490*	*0.89*	*Cum*
		2	*1.51*	*0.894*	*0.500*	*1.35*	*Cum*
	Floor	*1*	*0.63*	*2.200*	*0.700*	*0.96*	*Cum*
		1	*4.50*	*2.200*	*0.500*	*4.95*	*Cum*
		1	*0.31*	*2.200*	*0.200*	*0.14*	*Cum*
		1	*0.20*	*2.200*	*0.400*	*0.18*	*Cum*
		1	*2.30*	*2.200*	*0.500*	*2.53*	*Cum*
		1	*0.63*	*2.200*	*0.700*	*0.96*	*Cum*
	Crest	*1*	*0.75*	*2.200*	*0.890*	*1.47*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**36.19**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*2.200*	*0.200*	*0.26*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.29*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.29*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.73**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**36.19**	**0.00**	**0.109**	**7850.0**	**852.37**	**Kg**
	Total Weight in Metric Tonne					**0.85**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.84*		*0.450*	*1.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.84*		*1.300*	*4.35*	*Sqm*
		4		*0.840*	*1.300*	*4.37*	*Sqm*
		4	*0.84*		*0.500*	*1.67*	*Sqm*
		4		*1.380*	*0.500*	*2.76*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.690*	*6.90*	*Sqm*
		4		*0.657*	*0.690*	*1.81*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*1.014*	*0.500*	*2.03*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.490*	*3.73*	*Sqm*
		4		*0.597*	*0.490*	*1.17*	*Sqm*
		4	*1.90*		*0.500*	*3.81*	*Sqm*
		4		*0.894*	*0.500*	*1.79*	*Sqm*
	Section 5-5	*4*	*2.38*		*0.450*	*4.28*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.38*		*1.300*	*12.37*	*Sqm*
		4		*0.840*	*1.300*	*4.37*	*Sqm*
		4	*2.38*		*0.500*	*4.76*	*Sqm*
		4		*1.380*	*0.500*	*2.76*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.450*	*2.72*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.51*		*0.490*	*2.97*	*Sqm*
		4		*0.597*	*0.490*	*1.17*	*Sqm*
		4	*1.51*		*0.500*	*3.03*	*Sqm*
		4		*0.894*	*0.500*	*1.79*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.200*	*0.700*	*3.08*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*2.200*	*0.500*	*2.20*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*2.200*	*0.200*	*0.88*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.200*	*0.400*	*1.76*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*2.200*	*0.500*	*2.20*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.200*	*0.700*	*3.08*	*Sqm*
	Crest	*2*	*0.75*		*0.890*	*1.33*	*Sqm*
		2		*2.200*	*0.890*	*3.92*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.27*		*0.300*	*3.76*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.97*		*0.600*	*7.16*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**137.86**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.033*		*6.10*	*Sqm*
	TOTAL					**6.10**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.600*	*0.300*	**0.72**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.600*	*0.150*	**0.72**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.29*	*0.450*		*4.63*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.29*	*0.450*		*4.63*	*Sqm*
	TOTAL					**9.26**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.765		2.76	Cum
	Abutment						
	Section 1-1	2	*0.99*	*0.405*		*0.799*	*Cum*
	Section 2-2	2	*2.50*	*0.405*		*2.025*	*Cum*
	Section 3-3	2	*2.20*	*0.396*		*1.742*	*Cum*
	Section 5-5	2	*2.42*	*0.405*		*1.963*	*Cum*
	Section 6-6	2	*0.99*	*0.396*		*0.785*	*Cum*
	Toe wall	2	*6.27*	*0.150*	*0.600*	*1.881*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**12.23**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.372 METER AT CH.9.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.34*	*1.987*	*1.818*	*9.652*	*Cum*
	Section 2-2	*2*	*3.50*	*1.128*	*1.818*	*14.355*	*Cum*
	Section 3-3	*2*	*3.20*	*1.008*	*1.618*	*10.438*	*Cum*
	Section 5-5	*2*	*2.47*	*2.137*	*1.818*	*19.196*	*Cum*
	Section 6-6	*2*	*0.94*	*1.008*	*1.618*	*3.056*	*Cum*
	U/S Key Floor	*1*	*0.70*	*2.000*	*1.150*	*1.610*	*Cum*
	U/S Floor	*1*	*3.00*	*2.000*	*1.572*	*9.432*	*Cum*
	D/S Floor	*1*	*3.50*	*2.000*	*1.050*	*7.350*	*Cum*
		1	*3.50*	*2.000*	*0.850*	*5.950*	*Cum*
	D/S Key Floor	*1*	*1.08*	*2.000*	*0.700*	*1.505*	*Cum*
	Toe Wall D/S Portion	*1*	*5.89*	*0.750*	*0.900*	*3.976*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
	TOTAL					**87.87**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*1.12*	*2.000*	*0.150*	*0.34*	*Cum*
		1	*0.35*	*2.000*	*0.150*	*0.11*	*Cum*
		1	*0.28*	*2.000*	*0.150*	*0.08*	*Cum*
		1	*5.04*	*2.000*	*0.150*	*1.51*	*Cum*
		1	*0.49*	*2.000*	*0.150*	*0.15*	*Cum*
		1	*1.84*	*2.000*	*0.150*	*0.55*	*Cum*
		1	*1.40*	*2.000*	*0.150*	*0.42*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.34*	*1.987*	*0.150*	*0.80*	*Cum*
	Section 2-2	*2*	*3.50*	*1.128*	*0.150*	*1.18*	*Cum*
	Section 3-3	*2*	*3.20*	*1.008*	*0.150*	*0.97*	*Cum*
	Section 5-5	*2*	*2.47*	*2.137*	*0.150*	*1.58*	*Cum*
	Section 6-6	*2*	*0.94*	*1.008*	*0.150*	*0.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.89*	*0.750*	*0.300*	*1.33*	*Cum*
	Toe Wall D/S Portion	*1*	*5.59*	*0.450*	*0.600*	*1.51*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**11.94**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.19*	*0.450*	*0.450*	*0.48*	*Cum*
		2	*1.19*	*1.069*	*2.062*	*5.23*	*Cum*
		2	*1.19*	*1.837*	*0.700*	*3.05*	*Cum*
	Section 2-2	*2*	*3.50*	*0.450*	*0.450*	*1.42*	*Cum*
		2	*3.50*	*0.639*	*0.630*	*2.82*	*Cum*
		2	*3.50*	*0.978*	*0.700*	*4.79*	*Cum*
	Section 3-3	*2*	*2.92*	*0.450*	*0.450*	*1.18*	*Cum*
		2	*2.92*	*0.579*	*0.430*	*1.45*	*Cum*
		2	*2.92*	*0.858*	*0.550*	*2.76*	*Cum*
	Section 5-5	*2*	*2.43*	*0.450*	*0.450*	*0.98*	*Cum*
		2	*2.43*	*1.069*	*2.062*	*10.69*	*Cum*
		2	*2.43*	*1.837*	*0.500*	*4.46*	*Cum*
	Section 6-6	*2*	*1.44*	*0.450*	*0.450*	*0.58*	*Cum*
		2	*1.44*	*0.579*	*0.430*	*0.72*	*Cum*
		2	*1.44*	*0.858*	*0.550*	*1.36*	*Cum*
	Floor	*1*	*0.70*	*2.000*	*1.000*	*1.40*	*Cum*
		1	*1.46*	*2.000*	*0.500*	*1.46*	*Cum*
		1	*0.20*	*2.000*	*0.600*	*0.24*	*Cum*
		1	*4.84*	*2.000*	*0.700*	*6.78*	*Cum*
		1	*0.60*	*2.000*	*0.350*	*0.42*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*2.000*	*0.450*	*0.18*	*Cum*
		1	*3.30*	*2.000*	*0.550*	*3.63*	*Cum*
		1	*1.08*	*2.000*	*1.250*	*2.69*	*Cum*
	Crest	*1*	*1.07*	*2.000*	*1.627*	*3.49*	*Cum*
	TOTAL					**62.25**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*2.000*	*0.200*	*0.32*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.31*	*0.450*	*0.050*	*0.28*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.31*	*0.450*	*0.050*	*0.28*	*Cum*
	TOTAL					**0.87**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**62.25**	**0.00**	**0.187**	**7850.0**	**1465.97**	**Kg**
	Total Weight in Metric Tonne					**1.47**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.19*		*0.450*	*2.13*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.19*		*2.062*	*9.78*	*Sqm*
		4		*1.069*	*2.062*	*8.81*	*Sqm*
		4	*1.19*		*0.700*	*3.32*	*Sqm*
		4		*1.837*	*0.700*	*5.14*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.450*	*6.30*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.50*		*0.630*	*8.82*	*Sqm*
		4		*0.639*	*0.630*	*1.61*	*Sqm*
		4	*3.50*		*0.700*	*9.80*	*Sqm*
		4		*0.978*	*0.700*	*2.74*	*Sqm*
	Section 3-3	*4*	*2.92*		*0.450*	*5.26*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.92*		*0.430*	*5.02*	*Sqm*
		4		*0.579*	*0.430*	*1.00*	*Sqm*
		4	*2.92*		*0.550*	*6.43*	*Sqm*
		4		*0.858*	*0.550*	*1.89*	*Sqm*
	Section 5-5	*4*	*2.43*		*0.450*	*4.37*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.43*		*2.062*	*20.01*	*Sqm*
		4		*1.069*	*2.062*	*8.81*	*Sqm*
		4	*2.43*		*0.500*	*4.85*	*Sqm*
		4		*1.837*	*0.500*	*3.67*	*Sqm*
	Section 6-6	*4*	*1.44*		*0.450*	*2.59*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.44*		*0.430*	*2.48*	*Sqm*
		4		*0.579*	*0.430*	*1.00*	*Sqm*
		4	*1.44*		*0.550*	*3.17*	*Sqm*
		4		*0.858*	*0.550*	*1.89*	*Sqm*
	Floor	*2*	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*2.000*	*1.000*	*4.00*	*Sqm*
		2	*1.46*		*0.500*	*1.46*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*0.20*		*0.600*	*0.24*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*4.84*		*0.700*	*6.78*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*0.60*		*0.350*	*0.42*	*Sqm*
		2		*2.000*	*0.350*	*1.40*	*Sqm*
		2	*0.20*		*0.450*	*0.18*	*Sqm*
		2		*2.000*	*0.450*	*1.80*	*Sqm*
		2	*3.30*		*0.550*	*3.63*	*Sqm*
		2		*2.000*	*0.550*	*2.20*	*Sqm*
		2	*1.08*		*1.250*	*2.69*	*Sqm*
		2		*2.000*	*1.250*	*5.00*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*1.07*		*1.627*	*3.49*	*Sqm*
		2		*2.000*	*1.627*	*6.51*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.89*		*0.300*	*3.53*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.59*		*0.600*	*6.71*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**200.15**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.925*		*5.78*	*Sqm*
	TOTAL					**5.78**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.400*	*0.300*	**0.63**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.400*	*0.150*	**0.63**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.31*	*0.450*		*5.54*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.31*	*0.450*		*5.54*	*Sqm*
	TOTAL					**11.08**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		10.434		10.43	Cum
	Abutment						
	Section 1-1	2	*1.34*	*0.515*		*1.376*	*Cum*
	Section 2-2	2	*3.50*	*0.507*		*3.546*	*Cum*
	Section 3-3	2	*3.20*	*0.518*		*3.315*	*Cum*
	Section 5-5	2	*2.47*	*0.515*		*2.545*	*Cum*
	Section 6-6	2	*0.94*	*0.518*		*0.971*	*Cum*
	Toe wall	2	*5.89*	*0.150*	*0.600*	*1.767*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**24.22**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 10.825 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*1.726*	*1.693*	*6.864*	*Cum*
	Section 2-2	*2*	*2.50*	*1.086*	*1.693*	*9.193*	*Cum*
	Section 3-3	*2*	*2.20*	*0.966*	*1.493*	*6.346*	*Cum*
	Section 5-5	*2*	*2.11*	*1.876*	*1.693*	*13.387*	*Cum*
	Section 6-6	*2*	*0.87*	*0.966*	*1.493*	*2.521*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.700*	*0.850*	*0.903*	*Cum*
	U/S Floor	*1*	*2.50*	*1.700*	*1.643*	*6.983*	*Cum*
	D/S Floor	*1*	*2.50*	*1.700*	*0.700*	*2.975*	*Cum*
		1	*2.50*	*1.700*	*0.550*	*2.338*	*Cum*
	D/S Key Floor	*1*	*0.69*	*1.700*	*1.100*	*1.286*	*Cum*
	Toe Wall D/S Portion	*1*	*5.38*	*0.750*	*0.900*	*3.632*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
	TOTAL					**57.78**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.700*	*0.150*	*0.14*	*Cum*
		1	*0.78*	*1.700*	*0.150*	*0.20*	*Cum*
		1	*0.37*	*1.700*	*0.150*	*0.10*	*Cum*
		1	*0.07*	*1.700*	*0.150*	*0.02*	*Cum*
		1	*3.28*	*1.700*	*0.150*	*0.84*	*Cum*
		1	*0.34*	*1.700*	*0.150*	*0.09*	*Cum*
		1	*1.09*	*1.700*	*0.150*	*0.28*	*Cum*
		1	*1.06*	*1.700*	*0.150*	*0.27*	*Cum*
		1	*0.54*	*1.700*	*0.150*	*0.14*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.17*	*1.726*	*0.150*	*0.61*	*Cum*
	Section 2-2	*2*	*2.50*	*1.086*	*0.150*	*0.81*	*Cum*
	Section 3-3	*2*	*2.20*	*0.966*	*0.150*	*0.64*	*Cum*
	Section 5-5	*2*	*2.11*	*1.876*	*0.150*	*1.19*	*Cum*
	Section 6-6	*2*	*0.87*	*0.966*	*0.150*	*0.25*	*Cum*
	Toe Wall D/S Portion	*1*	*5.38*	*0.750*	*0.300*	*1.21*	*Cum*
	Toe Wall D/S Portion	*1*	*5.08*	*0.450*	*0.600*	*1.37*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**8.95**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.450*	*0.450*	*0.41*	*Cum*
		2	*1.02*	*0.938*	*1.627*	*3.11*	*Cum*
		2	*1.02*	*1.576*	*0.550*	*1.77*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.618*	*0.560*	*1.73*	*Cum*
		2	*2.50*	*0.936*	*0.550*	*2.57*	*Cum*
	Section 3-3	*2*	*1.94*	*0.450*	*0.450*	*0.79*	*Cum*
		2	*1.94*	*0.558*	*0.360*	*0.78*	*Cum*
		2	*1.94*	*0.816*	*0.500*	*1.58*	*Cum*
	Section 5-5	*2*	*2.06*	*0.450*	*0.450*	*0.84*	*Cum*
		2	*2.06*	*0.938*	*1.627*	*6.30*	*Cum*
		2	*2.06*	*1.576*	*0.500*	*3.25*	*Cum*
	Section 6-6	*2*	*1.28*	*0.450*	*0.450*	*0.52*	*Cum*
		2	*1.28*	*0.558*	*0.360*	*0.52*	*Cum*
		2	*1.28*	*0.816*	*0.550*	*1.15*	*Cum*
	Floor	*1*	*0.63*	*1.700*	*0.700*	*0.74*	*Cum*
		1	*1.38*	*0.816*	*0.500*	*0.56*	*Cum*
		1	*0.05*	*1.700*	*0.525*	*0.04*	*Cum*
		1	*3.62*	*1.700*	*0.550*	*3.38*	*Cum*
		1	*0.20*	*1.700*	*0.400*	*0.14*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*1.700*	*0.250*	*0.09*	*Cum*
		1	*2.30*	*1.700*	*0.500*	*1.96*	*Cum*
		1	*0.69*	*1.700*	*0.950*	*1.11*	*Cum*
	Crest	*1*	*0.91*	*1.700*	*1.267*	*1.96*	*Cum*
	TOTAL					**36.32**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.700*	*0.200*	*0.24*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*7.27*	*0.450*	*0.050*	*0.16*	*Cum*
	On Abutment Top (Right Side)	*1*	*7.27*	*0.450*	*0.050*	*0.16*	*Cum*
	TOTAL					**0.57**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**36.32**	**0.00**	**0.109**	**7850.0**	**855.34**	**Kg**
	Total Weight in Metric Tonne					**0.86**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.450*	*1.84*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.02*		*1.627*	*6.64*	*Sqm*
		4		*0.938*	*1.627*	*6.10*	*Sqm*
		4	*1.02*		*0.550*	*2.24*	*Sqm*
		4		*1.576*	*0.550*	*3.47*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.560*	*5.60*	*Sqm*
		4		*0.618*	*0.560*	*1.38*	*Sqm*
		4	*2.50*		*0.550*	*5.50*	*Sqm*
		4		*0.936*	*0.550*	*2.06*	*Sqm*
	Section 3-3	*4*	*1.94*		*0.450*	*3.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.94*		*0.360*	*2.80*	*Sqm*
		4		*0.558*	*0.360*	*0.80*	*Sqm*
		4	*1.94*		*0.500*	*3.88*	*Sqm*
		4		*0.816*	*0.500*	*1.63*	*Sqm*
	Section 5-5	*4*	*2.06*		*0.450*	*3.71*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.06*		*1.627*	*13.43*	*Sqm*
		4		*0.938*	*1.627*	*6.10*	*Sqm*
		4	*2.06*		*0.500*	*4.13*	*Sqm*
		4		*1.576*	*0.500*	*3.15*	*Sqm*
	Section 6-6	*4*	*1.28*		*0.450*	*2.31*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.28*		*0.360*	*1.85*	*Sqm*
		4		*0.558*	*0.360*	*0.80*	*Sqm*
		4	*1.28*		*0.550*	*2.82*	*Sqm*
		4		*0.816*	*0.550*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.700*	*0.700*	*2.38*	*Sqm*
		2	*1.382*		*0.5*	*1.38*	*Sqm*
		2		*0.816*	*0.500*	*0.82*	*Sqm*
		2	*0.05*		*0.525*	*0.05*	*Sqm*
		2		*1.7*	*0.525*	*1.79*	*Sqm*
		2	*3.62*		*0.550*	*3.98*	*Sqm*
		2		*1.700*	*0.550*	*1.87*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.700*	*0.400*	*1.36*	*Sqm*
		2	*0.20*		*0.250*	*0.10*	*Sqm*
		2		*1.700*	*0.250*	*0.85*	*Sqm*
		2	*2.3*		*0.500*	*2.30*	*Sqm*
		2		*1.7*	*0.500*	*1.70*	*Sqm*
		2	*0.69*		*0.950*	*1.31*	*Sqm*
		2		*1.700*	*0.950*	*3.23*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*0.91*		*1.267*	*2.31*	*Sqm*
		2		*1.700*	*1.267*	*4.31*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.38*		*0.300*	*3.23*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.08*		*0.600*	*6.10*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**142.75**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.799*		*5.40*	*Sqm*
	TOTAL					**5.40**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.100*	*0.300*	**0.50**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.100*	*0.150*	**0.50**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.27*	*0.450*		*3.27*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.27*	*0.450*		*3.27*	*Sqm*
	TOTAL					**6.54**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.687		5.69	Cum
	Abutment						
	Section 1-1	2	*1.17*	*0.676*		*1.588*	*Cum*
	Section 2-2	2	*2.50*	*0.619*		*3.095*	*Cum*
	Section 3-3	2	*2.20*	*0.445*		*1.958*	*Cum*
	Section 5-5	2	*2.11*	*0.695*		*2.929*	*Cum*
	Section 6-6	2	*0.87*	*0.669*		*1.169*	*Cum*
	Toe wall	2	*5.38*	*0.150*	*0.600*	*1.614*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**18.31**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.11.750 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*1.599*	*1.411*	*5.122*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*1.411*	*7.408*	*Cum*
	Section 3-3	*2*	*2.20*	*0.930*	*1.211*	*4.955*	*Cum*
	Section 5-5	*2*	*2.01*	*1.749*	*1.411*	*9.901*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*1.211*	*1.847*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.600*	*0.850*	*0.319*	*Cum*
	U/S Floor	*1*	*0.94*	*0.600*	*1.411*	*0.794*	*Cum*
	D/S Floor	*1*	*3.56*	*0.600*	*0.650*	*1.389*	*Cum*
		1	*2.47*	*0.600*	*0.650*	*0.962*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.600*	*0.850*	*0.319*	*Cum*
	Toe Wall D/S Portion	*1*	*4.10*	*0.750*	*0.900*	*2.768*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.25*	*0.900*	*0.450*	*0.506*	*Cum*
	TOTAL					**36.29**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
		1	*0.78*	*0.600*	*0.150*	*0.07*	*Cum*
		1	*3.77*	*0.600*	*0.150*	*0.34*	*Cum*
		1	*0.28*	*0.600*	*0.150*	*0.03*	*Cum*
		1	*1.24*	*0.600*	*0.150*	*0.11*	*Cum*
		1	*0.78*	*0.600*	*0.150*	*0.07*	*Cum*
		1	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.14*	*1.599*	*0.150*	*0.54*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*0.150*	*0.79*	*Cum*
	Section 3-3	*2*	*2.20*	*0.930*	*0.150*	*0.61*	*Cum*
	Section 5-5	*2*	*2.01*	*1.749*	*0.150*	*1.05*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.10*	*0.750*	*0.300*	*0.92*	*Cum*
	Toe Wall D/S Portion	*1*	*3.80*	*0.450*	*0.600*	*1.03*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.25*	*0.900*	*0.150*	*0.17*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.25*	*0.600*	*0.300*	*0.23*	*Cum*
	TOTAL					**6.28**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.99*	*0.450*	*0.450*	*0.40*	*Cum*
		2	*0.99*	*0.875*	*1.415*	*2.44*	*Cum*
		2	*0.99*	*1.449*	*0.500*	*1.43*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.600*	*0.500*	*1.50*	*Cum*
		2	*2.50*	*0.900*	*0.500*	*2.25*	*Cum*
	Section 3-3	*2*	*2.00*	*0.450*	*0.450*	*0.81*	*Cum*
		2	*2.00*	*0.540*	*0.300*	*0.65*	*Cum*
		2	*2.00*	*0.780*	*0.500*	*1.56*	*Cum*
	Section 5-5	*2*	*1.96*	*0.450*	*0.450*	*0.79*	*Cum*
		2	*1.96*	*0.875*	*1.415*	*4.86*	*Cum*
		2	*1.96*	*1.449*	*0.500*	*2.84*	*Cum*
	Section 6-6	*2*	*1.51*	*0.450*	*0.450*	*0.61*	*Cum*
		2	*1.51*	*0.540*	*0.300*	*0.49*	*Cum*
		2	*1.51*	*0.780*	*0.500*	*1.18*	*Cum*
	Floor	*1*	*0.63*	*0.600*	*0.700*	*0.26*	*Cum*
		1	*4.50*	*0.600*	*0.500*	*1.35*	*Cum*
		1	*0.20*	*0.600*	*0.400*	*0.05*	*Cum*
		1	*0.31*	*0.600*	*0.200*	*0.04*	*Cum*
		1	*2.30*	*0.600*	*0.500*	*0.69*	*Cum*
		1	*0.63*	*0.600*	*0.700*	*0.26*	*Cum*
	Crest	*1*	*0.88*	*0.600*	*1.135*	*0.60*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**26.08**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.600*	*0.150*	*0.06*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.29*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.29*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.48**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.08**	**0.00**	**0.078**	**7850.0**	**614.10**	**Kg**
	Total Weight in Metric Tonne					**0.61**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.99*		*0.450*	*1.78*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.99*		*1.415*	*5.58*	*Sqm*
		4		*0.875*	*1.415*	*4.95*	*Sqm*
		4	*0.99*		*0.500*	*1.97*	*Sqm*
		4		*1.449*	*0.500*	*2.90*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 3-3	*4*	*2.00*		*0.450*	*3.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.00*		*0.300*	*2.40*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*2.00*		*0.500*	*4.01*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Section 5-5	*4*	*1.96*		*0.450*	*3.53*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.96*		*1.415*	*11.10*	*Sqm*
		4		*0.875*	*1.415*	*4.95*	*Sqm*
		4	*1.96*		*0.500*	*3.92*	*Sqm*
		4		*1.449*	*0.500*	*2.90*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.450*	*2.72*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.51*		*0.300*	*1.81*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*1.51*		*0.500*	*3.02*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.600*	*0.700*	*0.84*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*0.600*	*0.500*	*0.60*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.600*	*0.400*	*0.48*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*0.600*	*0.200*	*0.24*	*Sqm*
		2	*2.3*		*0.500*	*2.30*	*Sqm*
		2		*0.6*	*0.500*	*0.60*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.600*	*0.700*	*0.84*	*Sqm*
	Crest	*2*	*0.88*		*1.135*	*2.00*	*Sqm*
		2		*0.600*	*1.135*	*1.36*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.10*		*0.300*	*2.46*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.80*		*0.600*	*4.56*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*2*	*1.25*		*0.150*	*0.38*	*Sqm*
		2		*0.900*	*0.150*	*0.27*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*2*	*1.25*		*0.300*	*0.75*	*Sqm*
		2		*0.600*	*0.300*	*0.36*	*Sqm*
	TOTAL					**112.68**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.691*		*4.23*	*Sqm*
	TOTAL					**4.23**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion					**0.00**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
						0.00	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.29*	*0.450*		*4.18*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.29*	*0.450*		*4.18*	*Sqm*
	TOTAL					**8.36**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.241		1.24	Cum
	Abutment						
	Section 1-1	2	*1.14*	*0.448*		*1.016*	*Cum*
	Section 2-2	2	*2.50*	*0.457*		*2.283*	*Cum*
	Section 3-3	2	*2.20*	*0.413*		*1.818*	*Cum*
	Section 5-5	2	*2.01*	*0.412*		*1.653*	*Cum*
	Section 6-6	2	*0.82*	*0.413*		*0.678*	*Cum*
	Toe wall	2	*4.10*	*0.150*	*0.600*	*1.230*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**10.14**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF FALLS FOR ANTI MINOR						
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.300 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*2.854*	*13.572*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*2.854*	*22.288*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*2.654*	*6.838*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*2.854*	*35.745*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*2.654*	*10.317*	*Cum*
	U/S Key Floor	*1*	*0.600*	*2.150*	*0.750*	*0.968*	*Cum*
	U/S Floor	*1*	*2.000*	*2.150*	*1.846*	*7.938*	*Cum*
	D/S Floor	*1*	*3.500*	*2.150*	*0.950*	*7.149*	*Cum*
		1	*2.000*	*2.150*	*0.750*	*3.225*	*Cum*
	D/S Key Floor	*1*	*0.700*	*2.150*	*1.150*	*1.731*	*Cum*
	Toe Wall D/S Portion	*1*	*6.700*	*0.750*	*0.900*	*4.523*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.500*	*0.600*	*0.750*	*2.250*	*Cum*
						116.54	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
		1	*0.670*	*2.15*	*0.15*	*0.22*	*Cum*
		1	*5.167*	*2.15*	*0.15*	*1.67*	*Cum*
		1	*0.424*	*2.15*	*0.15*	*0.14*	*Cum*
		1	*0.146*	*2.15*	*0.15*	*0.05*	*Cum*
		1	*1.118*	*2.15*	*0.15*	*0.36*	*Cum*
		1	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*0.15*	*0.71*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*0.15*	*1.17*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*0.15*	*0.39*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*0.15*	*1.88*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*0.15*	*0.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.70*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.40*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.60*	*0.15*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.30*	*0.60*	*0.90*	*Cum*
	TOTAL					**12.09**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.97*	*0.45*	*0.45*	*0.39*	*Cum*
		2	*0.97*	*0.99*	*1.81*	*3.50*	*Cum*
		2	*0.97*	*1.69*	*0.60*	*1.97*	*Cum*
	Section 2-2	*2*	*3.10*	*0.45*	*0.45*	*1.26*	*Cum*
		2	*3.10*	*0.71*	*0.85*	*3.71*	*Cum*
		2	*3.10*	*1.11*	*0.60*	*4.13*	*Cum*
	Section 3-3	*2*	*1.36*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.36*	*0.65*	*0.65*	*1.14*	*Cum*
		2	*1.36*	*0.99*	*0.50*	*1.34*	*Cum*
	Section 5-5	*2*	*2.89*	*0.45*	*0.45*	*1.17*	*Cum*
		2	*2.89*	*0.99*	*1.81*	*10.40*	*Cum*
		2	*2.89*	*1.69*	*0.60*	*5.84*	*Cum*
	Section 6-6	*2*	*1.63*	*0.45*	*0.45*	*0.66*	*Cum*
		2	*1.63*	*0.65*	*0.65*	*1.37*	*Cum*
		2	*1.63*	*0.99*	*0.50*	*1.61*	*Cum*
	Floor	*1*	*0.60*	*2.15*	*0.60*	*0.77*	*Cum*
		1	*5.50*	*2.15*	*0.60*	*7.10*	*Cum*
		1	*0.61*	*2.15*	*0.30*	*0.39*	*Cum*
		1	*0.20*	*2.15*	*0.40*	*0.17*	*Cum*
		1	*1.80*	*2.15*	*0.50*	*1.94*	*Cum*
		1	*0.70*	*2.15*	*1.00*	*1.51*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*1.06*	*2.15*	*1.31*	*2.98*	*Cum*
	TOTAL					**53.90**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*2.15*	*0.15*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**53.90**	**0.30%**	**0.16**	**7850**	**1269.29**	**Kg**
	Total Weight in Metric Tonne					**1.27**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.97*		*0.45*	*1.75*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.97*		*1.81*	*7.05*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*0.97*		*0.60*	*2.33*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 2-2	*4*	*3.10*		*0.45*	*5.58*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.10*		*0.85*	*10.54*	*Sqm*
		4		*0.71*	*0.85*	*2.40*	*Sqm*
		4	*3.10*		*0.60*	*7.44*	*Sqm*
		4		*1.11*	*0.60*	*2.66*	*Sqm*
	Section 3-3	*4*	*1.36*		*0.45*	*2.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.36*		*0.65*	*3.52*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.36*		*0.50*	*2.71*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 5-5	*4*	*2.89*		*0.45*	*5.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.89*		*1.81*	*20.93*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*2.89*		*0.60*	*6.92*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 6-6	*4*	*1.63*		*0.45*	*2.93*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.63*		*0.65*	*4.24*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.63*		*0.50*	*3.26*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Floor	*2*	*0.60*		*0.60*	*0.72*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*5.50*		*0.60*	*6.60*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*0.61*		*0.30*	*0.36*	*Sqm*
		2		*2.15*	*0.30*	*1.29*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.15*	*0.40*	*1.72*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.15*	*0.50*	*2.15*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*2.15*	*1.00*	*4.30*	*Sqm*
	Crest	*2*	*1.06*		*1.309*	*2.78*	*Sqm*
		2		*2.15*	*1.309*	*5.63*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.70*		*0.30*	*4.02*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.40*		*0.60*	*7.68*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.15*	*1.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.60*	*6.00*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**181.12**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.32*		*11.61*	*Sqm*
	TOTAL					**11.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.55*	*0.30*	**1.16**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.55*	*0.15*	**1.16**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	TOTAL					**9.89**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.74		4.74	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*2.00*		*4.786*	*Cum*
	Section 2-2	2	*3.10*	*0.97*		*5.993*	*Cum*
	Section 3-3	2	*1.13*	*0.74*		*1.675*	*Cum*
	Section 5-5	2	*2.93*	*2.00*		*11.722*	*Cum*
	Section 6-6	2	*1.71*	*0.74*		*2.527*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.70*	*0.08*		*1.072*	*Cum*
		2	2.50	0.08		*0.383*	*Cum*
	TOTAL					**32.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.800 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*2.014*	*9.577*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*2.014*	*15.728*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*1.814*	*4.674*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*2.014*	*25.224*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*1.814*	*7.052*	*Cum*
	U/S Key Floor	*1*	*0.600*	*2.150*	*0.750*	*0.968*	*Cum*
	U/S Floor	*1*	*2.000*	*2.150*	*1.846*	*7.938*	*Cum*
	D/S Floor	*1*	*3.500*	*2.150*	*0.950*	*7.149*	*Cum*
		1	*2.000*	*2.150*	*0.750*	*3.225*	*Cum*
	D/S Key Floor	*1*	*0.700*	*2.150*	*1.150*	*1.731*	*Cum*
	Toe Wall D/S Portion	*1*	*6.700*	*0.750*	*0.900*	*4.523*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.500*	*0.600*	*0.750*	*2.250*	*Cum*
						90.04	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
		1	*0.670*	*2.15*	*0.15*	*0.22*	*Cum*
		1	*5.167*	*2.15*	*0.15*	*1.67*	*Cum*
		1	*0.424*	*2.15*	*0.15*	*0.14*	*Cum*
		1	*0.146*	*2.15*	*0.15*	*0.05*	*Cum*
		1	*1.118*	*2.15*	*0.15*	*0.36*	*Cum*
		1	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*0.15*	*0.71*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*0.15*	*1.17*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*0.15*	*0.39*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*0.15*	*1.88*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*0.15*	*0.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.70*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.40*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.60*	*0.15*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.30*	*0.60*	*0.90*	*Cum*
	TOTAL					**12.09**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.97*	*0.45*	*0.45*	*0.39*	*Cum*
		2	*0.97*	*0.99*	*1.81*	*3.50*	*Cum*
		2	*0.97*	*1.69*	*0.60*	*1.97*	*Cum*
	Section 2-2	*2*	*3.10*	*0.45*	*0.45*	*1.26*	*Cum*
		2	*3.10*	*0.71*	*0.85*	*3.71*	*Cum*
		2	*3.10*	*1.11*	*0.60*	*4.13*	*Cum*
	Section 3-3	*2*	*1.36*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.36*	*0.65*	*0.65*	*1.14*	*Cum*
		2	*1.36*	*0.99*	*0.50*	*1.34*	*Cum*
	Section 5-5	*2*	*2.89*	*0.45*	*0.45*	*1.17*	*Cum*
		2	*2.89*	*0.99*	*1.81*	*10.40*	*Cum*
		2	*2.89*	*1.69*	*0.60*	*5.84*	*Cum*
	Section 6-6	*2*	*1.63*	*0.45*	*0.45*	*0.66*	*Cum*
		2	*1.63*	*0.65*	*0.65*	*1.37*	*Cum*
		2	*1.63*	*0.99*	*0.50*	*1.61*	*Cum*
	Floor	*1*	*0.60*	*2.15*	*0.60*	*0.77*	*Cum*
		1	*5.50*	*2.15*	*0.60*	*7.10*	*Cum*
		1	*0.61*	*2.15*	*0.30*	*0.39*	*Cum*
		1	*0.20*	*2.15*	*0.40*	*0.17*	*Cum*
		1	*1.80*	*2.15*	*0.50*	*1.94*	*Cum*
		1	*0.70*	*2.15*	*1.00*	*1.51*	*Cum*
	Crest	*1*	*1.06*	*2.15*	*1.31*	*2.98*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**53.90**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*2.15*	*0.15*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**53.90**	**0.30%**	**0.16**	**7850**	**1269.29**	**Kg**
	Total Weight in Metric Tonne					**1.27**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.97*		*0.45*	*1.75*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.97*		*1.81*	*7.05*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*0.97*		*0.60*	*2.33*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 2-2	*4*	*3.10*		*0.45*	*5.58*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.10*		*0.85*	*10.54*	*Sqm*
		4		*0.71*	*0.85*	*2.40*	*Sqm*
		4	*3.10*		*0.60*	*7.44*	*Sqm*
		4		*1.11*	*0.60*	*2.66*	*Sqm*
	Section 3-3	*4*	*1.36*		*0.45*	*2.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.36*		*0.65*	*3.52*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.36*		*0.50*	*2.71*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 5-5	*4*	*2.89*		*0.45*	*5.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.89*		*1.81*	*20.93*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*2.89*		*0.60*	*6.92*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 6-6	*4*	*1.63*		*0.45*	*2.93*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.63*		*0.65*	*4.24*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.63*		*0.50*	*3.26*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Floor	*2*	*0.60*		*0.60*	*0.72*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*5.50*		*0.60*	*6.60*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*0.61*		*0.30*	*0.36*	*Sqm*
		2		*2.15*	*0.30*	*1.29*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.15*	*0.40*	*1.72*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.15*	*0.50*	*2.15*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*2.15*	*1.00*	*4.30*	*Sqm*
	Crest	*2*	*1.06*		*1.309*	*2.78*	*Sqm*
		2		*2.15*	*1.309*	*5.63*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.70*		*0.30*	*4.02*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.40*		*0.60*	*7.68*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.15*	*1.50*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.60*	*6.00*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**181.12**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.32*		*11.61*	*Sqm*
	TOTAL					**11.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.55*	*0.30*	**1.16**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.55*	*0.15*	**1.16**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	TOTAL					**9.89**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.38		3.38	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*1.50*		*3.588*	*Cum*
	Section 2-2	2	*3.10*	*0.80*		*4.958*	*Cum*
	Section 3-3	2	*1.13*	*0.64*		*1.446*	*Cum*
	Section 5-5	2	*2.93*	*1.50*		*8.787*	*Cum*
	Section 6-6	2	*1.71*	*0.64*		*2.182*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.70*	*0.08*		*1.072*	*Cum*
		2	2.50	0.08		*0.383*	*Cum*
	TOTAL					**25.80**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 4.115 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*2.325*	*11.056*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*2.325*	*18.157*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*2.125*	*5.475*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*2.325*	*29.119*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*2.125*	*8.261*	*Cum*
	U/S Key Floor	*1*	*0.600*	*2.150*	*0.750*	*0.968*	*Cum*
	U/S Floor	*1*	*2.000*	*2.150*	*1.846*	*7.938*	*Cum*
	D/S Floor	*1*	*3.500*	*2.150*	*0.950*	*7.149*	*Cum*
		1	*2.000*	*2.150*	*0.750*	*3.225*	*Cum*
	D/S Key Floor	*1*	*0.700*	*2.150*	*1.150*	*1.731*	*Cum*
	Toe Wall D/S Portion	*1*	*6.700*	*0.750*	*0.900*	*4.523*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.500*	*0.600*	*0.750*	*2.250*	*Cum*
						99.85	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
		1	*0.670*	*2.15*	*0.15*	*0.22*	*Cum*
		1	*5.167*	*2.15*	*0.15*	*1.67*	*Cum*
		1	*0.424*	*2.15*	*0.15*	*0.14*	*Cum*
		1	*0.146*	*2.15*	*0.15*	*0.05*	*Cum*
		1	*1.118*	*2.15*	*0.15*	*0.36*	*Cum*
		1	*0.542*	*2.15*	*0.15*	*0.17*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.99*	*0.15*	*0.71*	*Cum*
	Section 2-2	*2*	*3.10*	*1.26*	*0.15*	*1.17*	*Cum*
	Section 3-3	*2*	*1.13*	*1.14*	*0.15*	*0.39*	*Cum*
	Section 5-5	*2*	*2.93*	*2.14*	*0.15*	*1.88*	*Cum*
	Section 6-6	*2*	*1.71*	*1.14*	*0.15*	*0.58*	*Cum*
	Toe Wall D/S Portion	*1*	*6.70*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.40*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.60*	*0.15*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.30*	*0.60*	*0.90*	*Cum*
	TOTAL					**12.09**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.97*	*0.45*	*0.45*	*0.39*	*Cum*
		2	*0.97*	*0.99*	*1.81*	*3.50*	*Cum*
		2	*0.97*	*1.69*	*0.60*	*1.97*	*Cum*
	Section 2-2	*2*	*3.10*	*0.45*	*0.45*	*1.26*	*Cum*
		2	*3.10*	*0.71*	*0.85*	*3.71*	*Cum*
		2	*3.10*	*1.11*	*0.60*	*4.13*	*Cum*
	Section 3-3	*2*	*1.36*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.36*	*0.65*	*0.65*	*1.14*	*Cum*
		2	*1.36*	*0.99*	*0.50*	*1.34*	*Cum*
	Section 5-5	*2*	*2.89*	*0.45*	*0.45*	*1.17*	*Cum*
		2	*2.89*	*0.99*	*1.81*	*10.40*	*Cum*
		2	*2.89*	*1.69*	*0.60*	*5.84*	*Cum*
	Section 6-6	*2*	*1.63*	*0.45*	*0.45*	*0.66*	*Cum*
		2	*1.63*	*0.65*	*0.65*	*1.37*	*Cum*
		2	*1.63*	*0.99*	*0.50*	*1.61*	*Cum*
	Floor	*1*	*0.60*	*2.15*	*0.60*	*0.77*	*Cum*
		1	*5.50*	*2.15*	*0.60*	*7.10*	*Cum*
		1	*0.61*	*2.15*	*0.30*	*0.39*	*Cum*
		1	*0.20*	*2.15*	*0.40*	*0.17*	*Cum*
		1	*1.80*	*2.15*	*0.50*	*1.94*	*Cum*
		1	*0.70*	*2.15*	*1.00*	*1.51*	*Cum*
	Crest	*1*	*1.06*	*2.15*	*1.31*	*2.98*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**53.90**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*2.15*	*0.15*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*	*0.05*	*0.25*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**53.90**	**0.30%**	**0.16**	**7850**	**1269.29**	**Kg**
	Total Weight in Metric Tonne					**1.27**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.97*		*0.45*	*1.75*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.97*		*1.81*	*7.05*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*0.97*		*0.60*	*2.33*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 2-2	*4*	*3.10*		*0.45*	*5.58*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.10*		*0.85*	*10.54*	*Sqm*
		4		*0.71*	*0.85*	*2.40*	*Sqm*
		4	*3.10*		*0.60*	*7.44*	*Sqm*
		4		*1.11*	*0.60*	*2.66*	*Sqm*
	Section 3-3	*4*	*1.36*		*0.45*	*2.44*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.36*		*0.65*	*3.52*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.36*		*0.50*	*2.71*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Section 5-5	*4*	*2.89*		*0.45*	*5.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.89*		*1.81*	*20.93*	*Sqm*
		4		*0.99*	*1.81*	*7.21*	*Sqm*
		4	*2.89*		*0.60*	*6.92*	*Sqm*
		4		*1.69*	*0.60*	*4.05*	*Sqm*
	Section 6-6	*4*	*1.63*		*0.45*	*2.93*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.63*		*0.65*	*4.24*	*Sqm*
		4		*0.65*	*0.65*	*1.68*	*Sqm*
		4	*1.63*		*0.50*	*3.26*	*Sqm*
		4		*0.99*	*0.50*	*1.98*	*Sqm*
	Floor	*2*	*0.60*		*0.60*	*0.72*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*5.50*		*0.60*	*6.60*	*Sqm*
		2		*2.15*	*0.60*	*2.58*	*Sqm*
		2	*0.61*		*0.30*	*0.36*	*Sqm*
		2		*2.15*	*0.30*	*1.29*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.15*	*0.40*	*1.72*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.15*	*0.50*	*2.15*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*2.15*	*1.00*	*4.30*	*Sqm*
	Crest	*2*	*1.06*		*1.309*	*2.78*	*Sqm*
		2		*2.15*	*1.309*	*5.63*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.70*		*0.30*	*4.02*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.40*		*0.60*	*7.68*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.15*	*1.50*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.60*	*6.00*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**181.12**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.32*		*11.61*	*Sqm*
	TOTAL					**11.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.55*	*0.30*	**1.16**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.55*	*0.15*	**1.16**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.99*	*0.45*		*4.95*	*Sqm*
	TOTAL					**9.89**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.02		2.02	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*1.50*		*3.588*	*Cum*
	Section 2-2	2	*3.10*	*0.70*		*4.339*	*Cum*
	Section 3-3	2	*1.13*	*0.25*		*0.565*	*Cum*
	Section 5-5	2	*2.93*	*1.50*		*8.787*	*Cum*
	Section 6-6	2	*1.71*	*0.25*		*0.853*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.70*	*0.08*		*1.072*	*Cum*
		2	2.50	0.08		*0.383*	*Cum*
	TOTAL					**21.60**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 4.572 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.780*	*3.544*	*15.436*	*Cum*
	Section 2-2	*2*	*3.00*	*1.140*	*3.544*	*24.241*	*Cum*
	Section 3-3	*2*	*2.20*	*1.020*	*3.344*	*15.008*	*Cum*
	Section 5-5	*2*	*2.29*	*1.930*	*3.544*	*31.299*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*3.344*	*6.515*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.500*	*0.850*	*0.797*	*Cum*
	U/S Floor	*1*	*2.50*	*1.500*	*2.017*	*7.564*	*Cum*
	D/S Floor	*1*	*3.00*	*1.500*	*1.050*	*4.725*	*Cum*
		1	*2.50*	*1.500*	*0.850*	*3.188*	*Cum*
	D/S Key Floor	*1*	*0.70*	*1.500*	*0.750*	*0.788*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.900*	*3.679*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						114.59	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.26*	*1.500*	*0.150*	*0.06*	*Cum*
		1	*0.14*	*1.500*	*0.150*	*0.03*	*Cum*
		1	*4.42*	*1.500*	*0.150*	*0.99*	*Cum*
		1	*0.42*	*1.500*	*0.150*	*0.10*	*Cum*
		1	*0.99*	*1.500*	*0.150*	*0.22*	*Cum*
		1	*1.12*	*1.500*	*0.150*	*0.25*	*Cum*
		1	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.780*	*0.150*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.140*	*0.150*	*1.03*	*Cum*
	Section 3-3	*2*	*2.20*	*1.020*	*0.150*	*0.67*	*Cum*
	Section 5-5	*2*	*2.29*	*1.930*	*0.150*	*1.32*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.300*	*1.23*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.450*	*0.600*	*1.39*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**9.47**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.00*	*0.450*	*0.450*	*0.40*	*Cum*
		2	*1.00*	*0.965*	*1.717*	*3.31*	*Cum*
		2	*1.00*	*1.630*	*0.600*	*1.95*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.645*	*0.650*	*2.52*	*Cum*
		2	*3.00*	*0.990*	*0.600*	*3.56*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.585*	*0.450*	*1.01*	*Cum*
		2	*1.92*	*0.870*	*0.500*	*1.67*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.965*	*1.717*	*7.44*	*Cum*
		2	*2.24*	*1.630*	*0.500*	*3.66*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.500*	*0.700*	*0.66*	*Cum*
		1	*5.50*	*1.500*	*0.500*	*4.13*	*Cum*
		1	*4.24*	*1.500*	*0.100*	*0.64*	*Cum*
		1	*0.26*	*1.500*	*0.300*	*0.12*	*Cum*
		1	*0.20*	*1.500*	*0.750*	*0.23*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*2.30*	*1.500*	*0.500*	*1.73*	*Cum*
		1	*0.70*	*1.500*	*1.000*	*1.05*	*Cum*
	Crest	*1*	*0.97*	*1.500*	*1.357*	*1.97*	*Cum*
	TOTAL					**41.42**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.500*	*0.150*	*0.17*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.45*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.45*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.64**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**41.42**	**0.00**	**0.124**	**7850.0**	**975.44**	**Kg**
	Total Weight in Metric Tonne					**0.98**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.00*		*0.450*	*1.80*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.00*		*1.717*	*6.86*	*Sqm*
		4		*0.965*	*1.717*	*6.63*	*Sqm*
		4	*1.00*		*0.600*	*2.40*	*Sqm*
		4		*1.630*	*0.600*	*3.91*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.650*	*7.80*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.990*	*0.600*	*2.38*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.92*		*0.500*	*3.83*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.04*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.717*	*15.41*	*Sqm*
		4		*0.965*	*1.717*	*6.63*	*Sqm*
		4	*2.24*		*0.500*	*4.49*	*Sqm*
		4		*1.630*	*0.500*	*3.26*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.500*	*0.700*	*2.10*	*Sqm*
		2	*5.50*		*0.500*	*5.50*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.26*		*0.300*	*0.15*	*Sqm*
		2		*1.500*	*0.300*	*0.90*	*Sqm*
		2	*0.20*		*0.750*	*0.30*	*Sqm*
		2		*1.500*	*0.750*	*2.25*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*1.500*	*1.000*	*3.00*	*Sqm*
	Crest	*2*	*0.97*		*1.357*	*2.63*	*Sqm*
		2		*1.500*	*1.357*	*4.07*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.45*		*0.300*	*3.27*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.600*	*6.18*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**152.51**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.962*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.900*	*0.300*	**0.41**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.900*	*0.150*	**0.41**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.45*	*0.450*		*4.70*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.45*	*0.450*		*4.70*	*Sqm*
	TOTAL					**9.41**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	*1*		*4.956*		*4.96*	*Cum*
	Abutment						
	Section 1-1	*2*	*1.22*	*2.155*		*5.273*	*Cum*
	Section 2-2	*2*	*3.00*	*0.757*		*4.542*	*Cum*
	Section 3-3	*2*	*2.20*	*0.556*		*2.446*	*Cum*
	Section 5-5	*2*	*2.29*	*2.134*		*9.765*	*Cum*
	Section 6-6	*2*	*0.96*	*0.556*		*1.062*	*Cum*
	D/S protection	*2*					
	Toe wall	*2*	*5.45*	*0.150*	*0.600*	*1.635*	*Cum*
		2	*1.50*	*0.150*	*0.600*	*0.270*	*Cum*
	TOTAL					**29.95**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 5.334 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*1.688*	*2.508*	*9.669*	*Cum*
	Section 2-2	*2*	*2.75*	*1.140*	*2.508*	*15.725*	*Cum*
	Section 3-3	*2*	*1.70*	*1.020*	*2.308*	*8.004*	*Cum*
	Section 5-5	*2*	*2.31*	*1.838*	*2.508*	*21.260*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*2.308*	*4.496*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.500*	*0.850*	*0.797*	*Cum*
	U/S Floor	*1*	*2.25*	*1.500*	*1.764*	*5.954*	*Cum*
	D/S Floor	*1*	*2.75*	*1.500*	*0.950*	*3.919*	*Cum*
		1	*2.00*	*1.500*	*0.750*	*2.250*	*Cum*
	D/S Key Floor	*1*	*0.65*	*1.500*	*0.650*	*0.634*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.900*	*3.679*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						77.74	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*4.23*	*1.500*	*0.150*	*0.95*	*Cum*
		1	*0.28*	*1.500*	*0.150*	*0.06*	*Cum*
		1	*0.79*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.14*	*1.688*	*0.150*	*0.58*	*Cum*
	Section 2-2	*2*	*2.75*	*1.140*	*0.150*	*0.94*	*Cum*
	Section 3-3	*2*	*1.70*	*1.020*	*0.150*	*0.52*	*Cum*
	Section 5-5	*2*	*2.31*	*1.838*	*0.150*	*1.27*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.300*	*1.23*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.450*	*0.600*	*1.39*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**8.82**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.92*	*0.450*	*0.450*	*0.37*	*Cum*
		2	*0.92*	*0.919*	*1.564*	*2.63*	*Cum*
		2	*0.92*	*1.538*	*0.500*	*1.41*	*Cum*
	Section 2-2	*2*	*2.75*	*0.450*	*0.450*	*1.11*	*Cum*
		2	*2.75*	*0.645*	*0.650*	*2.31*	*Cum*
		2	*2.75*	*0.990*	*0.500*	*2.72*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.585*	*0.450*	*1.01*	*Cum*
		2	*1.92*	*0.870*	*0.500*	*1.67*	*Cum*
	Section 5-5	*2*	*2.26*	*0.450*	*0.450*	*0.92*	*Cum*
		2	*2.26*	*0.919*	*1.564*	*6.50*	*Cum*
		2	*2.26*	*1.538*	*0.500*	*3.48*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.500*	*0.700*	*0.66*	*Cum*
		1	*5.00*	*1.500*	*0.500*	*3.75*	*Cum*
		1	*0.16*	*1.500*	*0.200*	*0.05*	*Cum*
		1	*0.20*	*1.500*	*0.400*	*0.12*	*Cum*
		1	*1.80*	*1.500*	*0.500*	*1.35*	*Cum*
		1	*0.65*	*1.500*	*0.800*	*0.78*	*Cum*
	Crest	*1*	*0.89*	*1.500*	*1.204*	*1.61*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**35.72**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.500*	*0.150*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**35.72**	**0.00**	**0.107**	**7850.0**	**841.30**	**Kg**
	Total Weight in Metric Tonne					**0.84**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.92*		*0.450*	*1.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.92*		*1.564*	*5.73*	*Sqm*
		4		*0.919*	*1.564*	*5.75*	*Sqm*
		4	*0.92*		*0.500*	*1.83*	*Sqm*
		4		*1.538*	*0.500*	*3.08*	*Sqm*
	Section 2-2	*4*	*2.75*		*0.450*	*4.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.75*		*0.650*	*7.15*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*2.75*		*0.500*	*5.50*	*Sqm*
		4		*0.990*	*0.500*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.92*		*0.500*	*3.83*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.26*		*0.450*	*4.07*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.26*		*1.564*	*14.15*	*Sqm*
		4		*0.919*	*1.564*	*5.75*	*Sqm*
		4	*2.26*		*0.500*	*4.52*	*Sqm*
		4		*1.538*	*0.500*	*3.08*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.500*	*0.700*	*2.10*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.16*		*0.200*	*0.06*	*Sqm*
		2		*1.500*	*0.200*	*0.60*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.500*	*0.400*	*1.20*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*1.500*	*0.800*	*2.40*	*Sqm*
	Crest	*2*	*0.89*		*1.204*	*2.15*	*Sqm*
		2		*1.500*	*1.204*	*3.61*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.45*		*0.300*	*3.27*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.600*	*6.18*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**139.03**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.962*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.900*	*0.300*	**0.41**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.900*	*0.150*	**0.41**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.450*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.450*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.546		3.55	**Cum**
	Abutment						
	Section 1-1	2	*1.14*	*1.645*		*3.757*	*Cum*
	Section 2-2	2	*2.75*	*0.742*		*4.081*	*Cum*
	Section 3-3	2	*1.70*	*0.556*		*1.890*	*Cum*
	Section 5-5	2	*2.31*	*1.650*		*7.610*	*Cum*
	Section 6-6	2	*0.96*	*0.556*		*1.062*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.45*	*0.150*	*0.600*	*1.635*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**23.85**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.762 METER AT CH. 5.750 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*2.239*	*9.921*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*2.239*	*15.718*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*2.039*	*7.172*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*2.239*	*20.950*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*2.039*	*6.530*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.50*	*1.000*	*2.017*	*5.043*	*Cum*
	D/S Floor	*1*	*1.69*	*1.000*	*0.850*	*1.439*	*Cum*
		1	*2.60*	*1.000*	*0.650*	*1.690*	*Cum*
	D/S Key Floor	*1*	*0.68*	*1.000*	*1.050*	*0.709*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						74.72	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.84*	*1.000*	*0.150*	*0.13*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.21*	*1.000*	*0.150*	*0.03*	*Cum*
		1	*4.32*	*1.000*	*0.150*	*0.65*	*Cum*
		1	*0.42*	*1.000*	*0.150*	*0.06*	*Cum*
		1	*1.04*	*1.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*1.000*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*0.150*	*1.05*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*0.150*	*1.40*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.90**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.07*	*0.980*	*1.767*	*3.72*	*Cum*
		2	*1.07*	*1.660*	*0.600*	*2.14*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.660*	*0.700*	*2.77*	*Cum*
		2	*3.00*	*1.020*	*0.600*	*3.67*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.34*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.34*	*0.980*	*1.767*	*8.12*	*Cum*
		2	*2.34*	*1.660*	*0.600*	*4.67*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*1.31*	*1.000*	*0.500*	*0.65*	*Cum*
		1	*4.19*	*1.000*	*0.500*	*2.10*	*Cum*
		1	*0.40*	*1.000*	*0.200*	*0.08*	*Cum*
		1	*0.30*	*1.000*	*0.257*	*0.08*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.68*	*1.000*	*0.900*	*0.61*	*Cum*
	Crest	*1*	*0.97*	*1.000*	*1.330*	*1.29*	*Cum*
	TOTAL					**40.46**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.000*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.46**	**0.00**	**0.121**	**7850.000**	**952.89**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.07*		*0.450*	*1.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.07*		*1.767*	*7.59*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*1.07*		*0.600*	*2.58*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*1.020*	*0.600*	*2.45*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.34*		*0.450*	*4.22*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.34*		*1.767*	*16.56*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*2.34*		*0.600*	*5.62*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.19*		*0.500*	*4.19*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*1.000*	*0.257*	*0.51*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*1.000*	*0.900*	*1.80*	*Sqm*
	Crest	*2*	*0.97*		*1.330*	*2.58*	*Sqm*
		2		*1.000*	*1.330*	*2.66*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**151.50**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	TOTAL					**9.58**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.055		4.05	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*1.200*		*2.938*	*Cum*
	Section 2-2	2	*3.00*	*0.771*		*4.626*	*Cum*
	Section 3-3	2	*1.68*	*0.570*		*1.910*	*Cum*
	Section 5-5	2	*2.39*	*1.200*		*5.729*	*Cum*
	Section 6-6	2	*1.53*	*0.570*		*1.739*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**22.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.6.553 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.37*	*2.054*	*1.440*	*8.095*	*Cum*
	Section 2-2	*2*	*3.65*	*1.140*	*1.440*	*11.984*	*Cum*
	Section 3-3	*2*	*3.30*	*1.020*	*1.240*	*8.348*	*Cum*
	Section 5-5	*2*	*2.23*	*2.204*	*1.440*	*14.155*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*1.240*	*2.416*	*Cum*
	U/S Key Floor	*1*	*0.70*	*1.200*	*1.150*	*0.966*	*Cum*
	U/S Floor	*1*	*3.25*	*1.200*	*2.830*	*11.037*	*Cum*
	D/S Floor	*1*	*3.25*	*1.200*	*0.850*	*3.315*	*Cum*
		1	*4.79*	*1.200*	*0.200*	*1.149*	*Cum*
		1	*2.00*	*1.200*	*0.650*	*1.558*	*Cum*
		1	*2.00*	*1.200*	*0.500*	*1.200*	*Cum*
	D/S Key Floor	*1*	*0.83*	*1.200*	*0.770*	*0.762*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.750*	*0.900*	*3.476*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						69.81	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
		1	*1.17*	*1.350*	*0.150*	*0.24*	*Cum*
		1	*0.38*	*1.350*	*0.150*	*0.08*	*Cum*
		1	*0.49*	*1.350*	*0.150*	*0.10*	*Cum*
		1	*4.82*	*1.350*	*0.150*	*0.98*	*Cum*
		1	*0.49*	*1.350*	*0.150*	*0.10*	*Cum*
		1	*1.59*	*1.350*	*0.150*	*0.32*	*Cum*
		1	*0.21*	*1.350*	*0.150*	*0.04*	*Cum*
		1	*0.50*	*1.350*	*0.150*	*0.10*	*Cum*
		1	*1.68*	*1.350*	*0.150*	*0.34*	*Cum*
		1	*0.54*	*1.350*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.37*	*2.05*	*0.150*	*0.84*	*Cum*
	Section 2-2	*2*	*3.65*	*1.14*	*0.150*	*1.25*	*Cum*
	Section 3-3	*2*	*3.30*	*1.02*	*0.150*	*1.01*	*Cum*
	Section 5-5	*2*	*2.23*	*2.20*	*0.150*	*1.47*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.75*	*0.300*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.45*	*0.600*	*1.31*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.600*	*0.54*	*Cum*
	TOTAL					**10.65**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*0.450*	*0.450*	*0.46*	*Cum*
		2	*1.14*	*1.102*	*2.174*	*5.48*	*Cum*
		2	*1.14*	*1.904*	*0.800*	*3.48*	*Cum*
	Section 2-2	*2*	*3.65*	*0.450*	*0.450*	*1.48*	*Cum*
		2	*3.65*	*0.645*	*0.650*	*3.06*	*Cum*
		2	*3.65*	*0.990*	*0.800*	*5.78*	*Cum*
	Section 3-3	*2*	*3.02*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.02*	*0.585*	*0.450*	*1.59*	*Cum*
		2	*3.02*	*0.870*	*0.650*	*3.41*	*Cum*
	Section 5-5	*2*	*2.19*	*0.450*	*0.450*	*0.89*	*Cum*
		2	*2.19*	*1.102*	*2.174*	*10.47*	*Cum*
		2	*2.19*	*1.904*	*0.500*	*4.16*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.70*	*1.200*	*1.000*	*0.84*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*6.50*	*1.200*	*0.500*	*3.90*	*Cum*
		1	*4.79*	*1.200*	*0.200*	*1.15*	*Cum*
		1	*0.24*	*1.200*	*0.350*	*0.10*	*Cum*
		1	*0.20*	*1.200*	*0.550*	*0.13*	*Cum*
		1	*1.80*	*1.200*	*0.650*	*1.40*	*Cum*
		1	*0.15*	*1.200*	*0.575*	*0.10*	*Cum*
		1	*1.85*	*1.200*	*0.500*	*1.11*	*Cum*
		1	*0.83*	*1.200*	*1.500*	*1.49*	*Cum*
	Crest	*1*	*1.09*	*1.200*	*1.814*	*2.38*	*Cum*
	TOTAL					**56.59**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*1.200*	*0.150*	*0.14*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*15.38*	*0.450*	*0.050*	*0.35*	*Cum*
	On Abutment Top (Right Side)	*1*	*15.38*	*0.450*	*0.050*	*0.35*	*Cum*
	TOTAL					**0.84**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**56.59**	**0.003**	**0.170**	**7850.0**	**1332.79**	**Kg**
	Total Weight in Metric Tonne					**1.33**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.14*		*0.450*	*2.06*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.14*		*2.174*	*9.94*	*Sqm*
		4		*1.102*	*2.174*	*9.58*	*Sqm*
		4	*1.14*		*0.800*	*3.66*	*Sqm*
		4		*1.904*	*0.800*	*6.09*	*Sqm*
	Section 2-2	*4*	*3.65*		*0.450*	*6.57*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.65*		*0.650*	*9.49*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*3.65*		*0.800*	*11.68*	*Sqm*
		4		*0.990*	*0.800*	*3.17*	*Sqm*
	Section 3-3	*4*	*3.02*		*0.450*	*5.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.02*		*0.450*	*5.43*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*3.02*		*0.650*	*7.84*	*Sqm*
		4		*0.870*	*0.650*	*2.26*	*Sqm*
	Section 5-5	*4*	*2.19*		*0.450*	*3.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.19*		*2.174*	*19.01*	*Sqm*
		4		*1.102*	*2.174*	*9.58*	*Sqm*
		4	*2.19*		*0.500*	*4.37*	*Sqm*
		4		*1.904*	*0.500*	*3.81*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*1.200*	*1.000*	*2.40*	*Sqm*
		2	*6.50*		*0.500*	*6.50*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.24*		*0.350*	*0.17*	*Sqm*
		2		*1.200*	*0.350*	*0.84*	*Sqm*
		2	*4.79*		*0.2*	*1.92*	*Sqm*
		2		*1.2*	*0.2*	*0.48*	*Sqm*
		2	*0.24*		*0.35*	*0.17*	*Sqm*
		2		*1.2*	*0.35*	*0.84*	*Sqm*
		2	*1.80*		*0.65*	*2.34*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.2*	*0.65*	*1.56*	*Sqm*
		2	*0.15*		*0.575*	*0.17*	*Sqm*
		2		*1.2*	*0.575*	*1.38*	*Sqm*
		2	*1.85*		*0.500*	*1.85*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.83*		*1.500*	*2.48*	*Sqm*
		2		*1.200*	*1.500*	*3.60*	*Sqm*
	Crest	*2*	*1.09*		*1.814*	*3.97*	*Sqm*
		2		*1.200*	*1.814*	*4.35*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.300*	*3.09*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.85*		*0.600*	*5.82*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**195.55**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.961*		*5.88*	*Sqm*
	TOTAL					**5.88**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.600*	*0.300*	**0.27**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.600*	*0.150*	**0.27**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*15.38*	*0.450*		*6.92*	*Sqm*
	On Abutment Top (Right Side)	*1*	*15.38*	*0.450*		*6.92*	*Sqm*
	TOTAL					**13.84**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		*9.568*		*9.568*	*Cum*
	Abutment						
	Section 1-1	*2*	*1.37*	*2.990*		*8.184*	*Cum*
	Section 2-2	*2*	*3.65*	*0.786*		*5.738*	*Cum*
	Section 3-3	*2*	*3.30*	*0.578*		*3.815*	*Cum*
	Section 5-5	*2*	*2.23*	*2.946*		*13.139*	*Cum*
	Section 6-6	*2*	*0.96*	*0.578*		*1.104*	*Cum*
	Toe wall	*2*	*5.15*	*0.150*	*0.600*	*1.545*	*Cum*
		2	*1.50*	*0.150*	*0.600*	*0.270*	*Cum*
	TOTAL					**43.36**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF FALLS FOR MARUKA MINOR						
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 0.750 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.26*	*1.902*	*1.902*	*9.113*	*Cum*
	Section 2-2	*2*	*3.50*	*1.170*	*1.902*	*15.568*	*Cum*
	Section 3-3	*2*	*2.22*	*1.050*	*1.702*	*7.935*	*Cum*
	Section 5-5	*2*	*2.37*	*2.052*	*1.902*	*18.484*	*Cum*
	Section 6-6	*2*	*1.00*	*1.050*	*1.702*	*3.574*	*Cum*
	U/S Key Floor	*1*	*0.68*	*1.200*	*1.050*	*0.851*	*Cum*
	U/S Floor	*1*	*3.00*	*1.200*	*2.220*	*7.992*	*Cum*
	D/S Floor	*1*	*3.50*	*1.200*	*0.850*	*3.570*	*Cum*
		1	*2.85*	*1.200*	*0.650*	*2.223*	*Cum*
	D/S Key Floor	*1*	*0.76*	*1.200*	*1.400*	*1.281*	*Cum*
	Toe Wall D/S Portion	*1*	*5.30*	*0.750*	*0.900*	*3.578*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						75.74	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
		1	*1.01*	*1.200*	*0.150*	*0.18*	*Cum*
		1	*0.55*	*1.200*	*0.150*	*0.10*	*Cum*
		1	*0.21*	*1.200*	*0.150*	*0.04*	*Cum*
		1	*4.93*	*1.200*	*0.150*	*0.89*	*Cum*
		1	*0.49*	*1.200*	*0.150*	*0.09*	*Cum*
		1	*0.86*	*1.200*	*0.150*	*0.16*	*Cum*
		1	*1.40*	*1.200*	*0.150*	*0.25*	*Cum*
		1	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.26*	*1.902*	*0.150*	*0.72*	*Cum*
	Section 2-2	*2*	*3.50*	*1.170*	*0.150*	*1.23*	*Cum*
	Section 3-3	*2*	*2.22*	*1.050*	*0.150*	*0.70*	*Cum*
	Section 5-5	*2*	*2.37*	*2.052*	*0.150*	*1.46*	*Cum*
	Section 6-6	*2*	*1.00*	*1.050*	*0.150*	*0.32*	*Cum*
	Toe Wall D/S Portion	*1*	*5.30*	*0.750*	*0.300*	*1.19*	*Cum*
	Toe Wall D/S Portion	*1*	*5.00*	*0.450*	*0.600*	*1.35*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**9.80**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.11*	*0.450*	*0.450*	*0.45*	*Cum*
		2	*1.11*	*1.026*	*1.920*	*4.37*	*Cum*
		2	*1.11*	*1.752*	*0.650*	*2.53*	*Cum*
	Section 2-2	*2*	*3.50*	*0.450*	*0.450*	*1.42*	*Cum*
		2	*3.50*	*0.660*	*0.700*	*3.23*	*Cum*
		2	*3.50*	*1.020*	*0.650*	*4.64*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.32*	*0.450*	*0.450*	*0.94*	*Cum*
		2	*2.32*	*1.026*	*1.920*	*9.16*	*Cum*
		2	*2.32*	*1.752*	*0.500*	*4.07*	*Cum*
	Section 6-6	*2*	*1.53*	*0.450*	*0.450*	*0.62*	*Cum*
		2	*1.53*	*0.600*	*0.500*	*0.92*	*Cum*
		2	*1.53*	*0.900*	*0.500*	*1.37*	*Cum*
	Floor	*1*	*0.68*	*1.200*	*0.900*	*0.73*	*Cum*
		1	*1.75*	*1.200*	*0.500*	*1.05*	*Cum*
		1	*0.20*	*1.200*	*0.575*	*0.14*	*Cum*
		1	*4.75*	*1.200*	*0.650*	*3.70*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.35*	*1.200*	*0.232*	*0.10*	*Cum*
		1	*0.20*	*1.200*	*0.400*	*0.10*	*Cum*
		1	*2.30*	*1.200*	*0.500*	*1.38*	*Cum*
		1	*0.76*	*1.200*	*1.250*	*1.14*	*Cum*
	Crest	*1*	*1.00*	*1.200*	*1.495*	*1.79*	*Cum*
	TOTAL					**47.47**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.200*	*0.150*	*0.14*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*11.20*	*0.450*	*0.050*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*11.20*	*0.450*	*0.050*	*0.25*	*Cum*
	TOTAL					**0.64**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**47.47**	**0.00**	**0.142**	**7850.0**	**1117.82**	**Kg**
	Total Weight in Metric Tonne					**1.12**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.11*		*0.450*	*2.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.11*		*1.920*	*8.52*	*Sqm*
		4		*1.026*	*1.920*	*7.88*	*Sqm*
		4	*1.11*		*0.650*	*2.89*	*Sqm*
		4		*1.752*	*0.650*	*4.56*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.450*	*6.30*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.50*		*0.700*	*9.79*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.50*		*0.650*	*9.09*	*Sqm*
		4		*1.020*	*0.650*	*2.65*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.450*	*4.18*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.32*		*1.920*	*17.85*	*Sqm*
		4		*1.026*	*1.920*	*7.88*	*Sqm*
		4	*2.32*		*0.500*	*4.65*	*Sqm*
		4		*1.752*	*0.500*	*3.50*	*Sqm*
	Section 6-6	*4*	*1.53*		*0.450*	*2.75*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.53*		*0.500*	*3.05*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.53*		*0.500*	*3.05*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*1.200*	*0.900*	*2.16*	*Sqm*
		2	*1.75*		*0.500*	*1.75*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*4.75*		*0.650*	*6.17*	*Sqm*
		2		*1.200*	*0.650*	*1.56*	*Sqm*
		2	*0.35*		*0.232*	*0.16*	*Sqm*
		2		*1.200*	*0.232*	*0.56*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.200*	*0.400*	*0.96*	*Sqm*
		2	*2.300*		*0.500*	*2.30*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.76*		*1.250*	*1.91*	*Sqm*
		2		*1.200*	*1.250*	*3.00*	*Sqm*
	Crest	*2*	*1.00*		*1.495*	*2.99*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.200*	*1.495*	*3.59*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.30*		*0.300*	*3.18*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.00*		*0.600*	*6.00*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**170.90**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.600*	*0.300*	**0.32**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.600*	*0.150*	**0.32**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.20*	*0.450*		*5.04*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.20*	*0.450*		*5.04*	*Sqm*
	TOTAL					**10.08**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		7.818		7.82	Cum
	Abutment						
	Section 1-1	2	*1.26*	*0.654*		*1.647*	*Cum*
	Section 2-2	2	*3.50*	*0.635*		*4.442*	*Cum*
	Section 3-3	2	*2.22*	*0.570*		*2.531*	*Cum*
	Section 5-5	2	*2.37*	*0.654*		*3.097*	*Cum*
	Section 6-6	2	*1.00*	*0.570*		*1.140*	*Cum*
	Toe wall	2	*5.30*	*0.150*	*0.600*	*1.590*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**22.58**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.500 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1	66.09			**66.09**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.57*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.54*	*1.72*	*0.15*	*1.31*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.49**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.83*	*1.36*	*4.87*	*Cum*
		2	*2.16*	*1.42*	*0.50*	*3.06*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*1.19*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.19*	*0.62*	*0.55*	*0.80*	*Cum*
		2	*1.19*	*0.93*	*0.50*	*1.10*	*Cum*
	Section 5-5	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.83*	*1.36*	*5.63*	*Cum*
		2	*2.50*	*1.42*	*0.50*	*3.54*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.85*	*1.46*	*0.95*	*1.18*	*Cum*
	TOTAL					**37.04**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.46*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	37.04	0.30%	0.11	7850	872.22	Kg
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.16*		*0.45*	*3.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*1.36*	*11.77*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.45*	*2.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.19*		*0.55*	*2.61*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.19*		*0.50*	*2.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*1.36*	*13.59*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.8505*		*0.952*	*1.62*	*Sqm*
		2		*1.46*	*0.952*	*2.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	TOTAL					**9.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		2.32		2.32	**Cum**
	TOTAL					**2.32**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 2.438 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.35*	*1.81*	*1.632*	*7.967*	*Cum*
	Section 2-2	*2*	*3.20*	*1.78*	*1.632*	*18.592*	*Cum*
	Section 3-3	*2*	*4.00*	*1.81*	*1.432*	*20.735*	*Cum*
	Section 5-5	*2*	*2.37*	*1.96*	*1.632*	*15.187*	*Cum*
	Section 6-6	*2*	*0.32*	*0.96*	*1.432*	*0.866*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.240*	*0.850*	*0.659*	*Cum*
	U/S Floor	*1*	*1.183*	*1.240*	*1.980*	*2.905*	*Cum*
		1	*4.516*	*1.240*	*2.330*	*13.048*	*Cum*
	D/S Floor	*1*	*4.300*	*1.240*	*1.980*	*10.557*	*Cum*
	D/S Key Floor	*1*	*4.300*	*1.240*	*0.700*	*3.732*	*Cum*
	Toe Wall D/S Portion	*1*	*4.890*	*0.750*	*0.750*	*2.751*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						98.35	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
		1	*0.782*	*1.24*	*0.15*	*0.15*	*Cum*
		1	*0.028*	*1.24*	*0.15*	*0.01*	*Cum*
		1	*0.282*	*1.24*	*0.15*	*0.05*	*Cum*
		1	*4.690*	*1.24*	*0.15*	*0.87*	*Cum*
		1	*0.494*	*1.24*	*0.15*	*0.09*	*Cum*
		1	*2.970*	*1.24*	*0.15*	*0.55*	*Cum*
		1	*0.726*	*1.24*	*0.15*	*0.14*	*Cum*
		1	*0.542*	*1.24*	*0.15*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.35*	*1.81*	*0.15*	*0.73*	*Cum*
	Section 2-2	*2*	*3.20*	*1.78*	*0.15*	*1.71*	*Cum*
	Section 3-3	*2*	*4.00*	*1.81*	*0.15*	*2.17*	*Cum*
	Section 5-5	*2*	*2.37*	*1.96*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*0.32*	*0.96*	*0.15*	*0.09*	*Cum*
	Toe Wall D/S Portion	*1*	*4.89*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.89*	*0.45*	*0.45*	*0.99*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.30*	*0.60*	*0.27*	*Cum*
	TOTAL					**10.79**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.20*	*0.96*	*1.27*	*2.93*	*Cum*
		2	*1.20*	*1.62*	*0.50*	*1.94*	*Cum*
	Section 2-2	*2*	*3.20*	*0.82*	*0.50*	*2.62*	*Cum*
		2	*3.20*	*1.06*	*0.51*	*3.46*	*Cum*
		2	*3.20*	*1.63*	*1.00*	*10.43*	*Cum*
	Section 3-3	*2*	*3.93*	*0.82*	*0.50*	*3.22*	*Cum*
		2	*3.93*	*0.97*	*0.31*	*2.36*	*Cum*
		2	*3.93*	*1.66*	*1.20*	*15.64*	*Cum*
	Section 5-5	*2*	*2.33*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.33*	*0.96*	*1.27*	*5.69*	*Cum*
		2	*2.33*	*1.62*	*0.50*	*3.77*	*Cum*
	Section 6-6	*2*	*1.00*	*0.45*	*0.45*	*0.40*	*Cum*
		2	*1.00*	*0.54*	*0.31*	*0.33*	*Cum*
		2	*1.00*	*0.81*	*0.55*	*0.89*	*Cum*
	Floor	*1*	*0.63*	*1.24*	*0.70*	*0.54*	*Cum*
		1	*0.98*	*1.24*	*0.50*	*0.61*	*Cum*
		1	*0.20*	*1.24*	*0.60*	*0.15*	*Cum*
		1	*4.32*	*1.24*	*0.70*	*3.75*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*1.24*	*0.45*	*0.11*	*Cum*
		1	*0.50*	*1.24*	*0.35*	*0.22*	*Cum*
		1	*4.30*	*1.24*	*0.55*	*2.93*	*Cum*
		1	*0.61*	*1.24*	*0.65*	*0.49*	*Cum*
	Crest	*1*	*1.08*	*1.24*	*1.45*	*1.95*	*Cum*
	TOTAL					**65.87**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*1.24*	*0.15*	*0.16*	*Cum*
	Coping over Abutment Top	*2*	*12.53*	*0.45*	*0.05*	*0.56*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.04*	*5.5*	*0.33*	*3.69*	*Cum*
	Wearing coat	*1*	*2.04*	*4.50*	*0.07*	*0.64*	*Cum*
	Dirt wall	*2*	*0.40*	*5.5*	*0.43*	*1.89*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*5.5*	*0.30*	*2.71*	*Cum*
	TOTAL					**9.65**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.50*		*1.578*	*122.3*	*Kg*
a2	*10*	*10*	*5.90*		*0.616*	*36.4*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.42*		*0.616*	*28.3*	*Kg*
a5	*10*	*8*	*5.80*		*0.616*	*28.6*	*Kg*
x1	*12*	*34*	*2.50*		*0.888*	*75.5*	*Kg*
x2	*16*	*34*	*1.27*		*1.578*	*67.9*	*Kg*
x3	*10*	*24*	*1.94*		*0.616*	*28.7*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**65.87**	**0.30%**	**0.20**	**7850**	**1551.17**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**1945.51**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**1.95**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.20*		*0.45*	*2.16*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.20*		*1.27*	*6.09*	*Sqm*
		4		*0.96*	*1.27*	*4.89*	*Sqm*
		4	*1.20*		*0.50*	*2.40*	*Sqm*
		4		*1.62*	*0.50*	*3.24*	*Sqm*
	Section 2-2	*4*	*3.20*		*0.50*	*6.40*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.20*		*0.51*	*6.53*	*Sqm*
		4		*1.06*	*0.51*	*2.16*	*Sqm*
		4	*3.20*		*1.00*	*12.80*	*Sqm*
		4		*1.63*	*1.00*	*6.52*	*Sqm*
	Section 3-3	*4*	*3.93*		*0.50*	*7.85*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.93*		*0.31*	*4.87*	*Sqm*
		4		*0.97*	*0.31*	*1.20*	*Sqm*
		4	*3.93*		*1.20*	*18.84*	*Sqm*
		4		*1.66*	*1.20*	*7.97*	*Sqm*
	Section 5-5	*4*	*2.33*		*0.45*	*4.19*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.33*		*1.27*	*11.84*	*Sqm*
		4		*0.96*	*1.27*	*4.89*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*1.62*	*0.50*	*3.24*	*Sqm*
	Section 6-6	*4*	*1.00*		*0.45*	*1.79*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.00*		*0.31*	*1.23*	*Sqm*
		4		*0.54*	*0.31*	*0.67*	*Sqm*
		4	*1.00*		*0.55*	*2.19*	*Sqm*
		4		*0.81*	*0.55*	*1.78*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*0.98*		*0.50*	*0.98*	*Sqm*
		2		*1.24*	*0.50*	*1.24*	*Sqm*
		2	*0.20*		*0.60*	*0.24*	*Sqm*
		2		*1.24*	*0.60*	*1.49*	*Sqm*
		2	*4.32*		*0.70*	*6.04*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*0.20*		*0.45*	*0.18*	*Sqm*
		2		*1.24*	*0.45*	*1.12*	*Sqm*
		2	*0.50*		*0.35*	*0.35*	*Sqm*
		2		*1.24*	*0.35*	*0.87*	*Sqm*
		2	*4.32*		*0.70*	*6.04*	*Sqm*
		2		*1.24*	*0.70*	*1.74*	*Sqm*
		2	*0.61*		*0.65*	*0.80*	*Sqm*
		2		*1.24*	*0.65*	*1.61*	*Sqm*
	Crest	*2*	*1.0835*		*1.45*	*3.14*	*Sqm*
		2		*1.24*	*1.45*	*3.60*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.89*		*0.30*	*2.93*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.89*		*0.45*	*4.40*	*Sqm*
		2		*0.45*	*0.45*	*0.41*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**183.66**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.34*	*Sqm*
	TOTAL					**5.34**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.64*	*0.30*	**0.29**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.64*	*0.15*	**0.29**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.53*	*0.45*		*5.64*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.53*	*0.45*		*5.64*	*Sqm*
	TOTAL					**11.27**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.26		4.26	**Cum**
	Abutment						
	Section 1-1	2	*1.35*	*0.98*		*2.643*	*Cum*
	Section 2-2	2	*3.20*	*0.63*		*4.022*	*Cum*
	Section 3-3	2	*4.00*	*0.56*		*4.510*	*Cum*
	Section 5-5	2	*2.37*	*0.98*		*4.653*	*Cum*
	Section 6-6	2	*0.32*	*0.45*		*0.286*	*Cum*
	D/S protection						
	Toe wall	2	*4.89*	*0.09*		*0.000*	*Cum*
	TOTAL					**20.37**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 3.300 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		53.64		**53.64**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.543*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.787*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*5.567*	*0.80*	*0.15*	*0.67*	*Cum*
		1	*0.283*	*0.80*	*0.15*	*0.03*	*Cum*
		1	*0.367*	*0.80*	*0.15*	*0.04*	*Cum*
		1	*0.895*	*0.80*	*0.15*	*0.11*	*Cum*
		1	*0.543*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.85*	*1.71*	*0.15*	*0.44*	*Cum*
	Section 2-2	*2*	*3.50*	*1.16*	*0.15*	*1.22*	*Cum*
	Section 3-3	*2*	*1.20*	*1.04*	*0.15*	*0.38*	*Cum*
	Section 5-5	*2*	*2.51*	*1.86*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*0.99*	*1.04*	*0.15*	*0.31*	*Cum*
	Toe Wall D/S Portion	*1*	*4.87*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.57*	*0.45*	*0.60*	*1.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**8.24**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.62*	*0.93*	*1.60*	*1.86*	*Cum*
		2	*0.62*	*1.56*	*0.50*	*0.97*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.66*	*0.69*	*3.17*	*Cum*
		2	*3.50*	*1.01*	*0.50*	*3.55*	*Cum*
	Section 3-3	*2*	*0.90*	*0.45*	*0.45*	*0.37*	*Cum*
		2	*0.90*	*0.60*	*0.49*	*0.53*	*Cum*
		2	*0.90*	*0.89*	*0.50*	*0.81*	*Cum*
	Section 5-5	*2*	*2.47*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.47*	*0.93*	*1.60*	*7.38*	*Cum*
		2	*2.47*	*1.56*	*0.50*	*3.86*	*Cum*
	Section 6-6	*2*	*1.44*	*0.45*	*0.45*	*0.58*	*Cum*
		2	*1.44*	*0.60*	*0.49*	*0.84*	*Cum*
		2	*1.44*	*0.89*	*0.50*	*1.29*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*6.00*	*0.80*	*0.50*	*2.40*	*Cum*
		1	*0.50*	*0.80*	*0.20*	*0.08*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*1.80*	*0.80*	*0.50*	*0.72*	*Cum*
		1	*0.65*	*0.80*	*0.80*	*0.42*	*Cum*
	Crest	*1*	*0.99*	*0.80*	*1.21*	*0.96*	*Cum*
	TOTAL					**32.87**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.80*	*0.15*	*0.10*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.45*	*0.05*	*0.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.45*	*0.05*	*0.22*	*Sqm*
	TOTAL					**0.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.41**	**0.30%**	**0.10**	**7850**	**786.82**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.62*		*0.45*	*1.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.62*		*1.60*	*4.00*	*Sqm*
		4		*0.93*	*1.60*	*5.98*	*Sqm*
		4	*0.62*		*0.50*	*1.25*	*Sqm*
		4		*1.56*	*0.50*	*3.13*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*0.69*	*9.66*	*Sqm*
		4		*0.66*	*0.69*	*1.81*	*Sqm*
		4	*3.50*		*0.50*	*7.00*	*Sqm*
		4		*1.01*	*0.50*	*2.03*	*Sqm*
	Section 3-3	*4*	*0.90*		*0.45*	*1.63*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.90*		*0.49*	*1.77*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*0.90*		*0.50*	*1.81*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Section 5-5	*4*	*2.47*		*0.45*	*4.45*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.47*		*1.60*	*15.84*	*Sqm*
		4		*0.93*	*1.60*	*5.98*	*Sqm*
		4	*2.47*		*0.50*	*4.94*	*Sqm*
		4		*1.56*	*0.50*	*3.13*	*Sqm*
	Section 6-6	*4*	*1.44*		*0.45*	*2.59*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.44*		*0.49*	*2.82*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*1.44*		*0.50*	*2.88*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*6.00*		*0.50*	*6.00*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*0.80*	*0.20*	*0.32*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.65*		*0.80*	*1.04*	*Sqm*
		2		*0.80*	*0.80*	*1.28*	*Sqm*
	Crest	*2*	*0.994*		*1.213*	*2.41*	*Sqm*
		2		*0.8*	*1.213*	*1.94*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.87*		*0.30*	*2.92*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.57*		*0.60*	*5.48*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**135.91**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.03*		*8.14*	*Sqm*
	TOTAL					**8.14**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.20*	*0.30*	**0.12**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.20*	*0.15*	**0.12**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.45*		*4.43*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.45*		*4.43*	*Sqm*
	TOTAL					**8.86**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		29.58		29.58	Cum
	TOTAL					**29.58**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF FALLS FOR RAMPUR MINOR						
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 0.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*2.287*	*6.663*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*2.287*	*12.830*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*2.087*	*7.106*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*2.287*	*17.090*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*2.087*	*5.977*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*2.00*	*0.850*	*1.460*	*2.482*	*Cum*
	D/S Floor	*1*	*2.50*	*0.850*	*0.850*	*1.806*	*Cum*
		1	*2.50*	*0.850*	*0.650*	*1.381*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.900*	*3.179*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						60.77	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*4.07*	*0.850*	*0.150*	*0.52*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*0.850*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*0.150*	*0.44*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*0.150*	*0.84*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*0.150*	*0.51*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*0.150*	*1.12*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*0.150*	*0.43*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.300*	*1.06*	*Cum*
	Toe Wall D/S Portion	*1*	*4.41*	*0.450*	*0.600*	*1.19*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.819*	*1.230*	*1.67*	*Cum*
		2	*0.83*	*1.338*	*0.500*	*1.11*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.636*	*0.620*	*1.97*	*Cum*
		2	*2.50*	*0.972*	*0.500*	*2.43*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.576*	*0.420*	*0.93*	*Cum*
		2	*1.92*	*0.852*	*0.500*	*1.64*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.819*	*1.230*	*4.51*	*Cum*
		2	*2.24*	*1.338*	*0.500*	*3.00*	*Cum*
	Section 6-6	*2*	*1.35*	*0.450*	*0.450*	*0.55*	*Cum*
		2	*1.35*	*0.576*	*0.420*	*0.66*	*Cum*
		2	*1.35*	*0.852*	*0.500*	*1.15*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*4.50*	*0.850*	*0.500*	*1.91*	*Cum*
		1	*0.40*	*0.850*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*0.850*	*0.498*	*0.08*	*Cum*
		1	*2.30*	*0.850*	*0.500*	*0.98*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*0.74*	*0.850*	*0.890*	*0.56*	*Cum*
	TOTAL					**26.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.51**	**Cum**
5	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.99**	**0.00**	**0.081**	**7850.000**	**635.70**	**Kg**
	Total Weight in Metric Tonne					**0.64**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.49*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.230*	*4.07*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.620*	*6.20*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.46*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.420*	*3.23*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.92*		*0.500*	*3.85*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.230*	*11.02*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*2.24*		*0.500*	*4.48*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 6-6	*4*	*1.35*		*0.450*	*2.44*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*0.420*	*2.27*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.35*		*0.500*	*2.71*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*0.850*	*0.498*	*0.85*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.74*		*0.890*	*1.32*	*Sqm*
		2		*0.850*	*0.890*	*1.51*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.71*		*0.300*	*2.83*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	*2*	*4.41*		*0.600*	*5.29*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**118.43**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.051*		*6.15*	*Sqm*
	TOTAL					**6.15**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	TOTAL					**8.59**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.662		1.66	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*0.943*		*1.845*	*Cum*
	Section 2-2	2	*2.50*	*0.679*		*3.394*	*Cum*
	Section 3-3	2	*1.70*	*0.519*		*1.763*	*Cum*
	Section 5-5	2	*2.28*	*0.943*		*4.300*	*Cum*
	Section 6-6	2	*1.43*	*0.519*		*1.482*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.71*	*0.150*	*0.600*	*1.413*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**16.13**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.1.219 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.37*	*2.054*	*1.440*	*8.095*	*Cum*
	Section 2-2	*2*	*3.65*	*1.140*	*1.440*	*11.984*	*Cum*
	Section 3-3	*2*	*3.30*	*1.020*	*1.240*	*8.348*	*Cum*
	Section 5-5	*2*	*2.23*	*2.204*	*1.440*	*14.155*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*1.240*	*2.416*	*Cum*
	U/S Key Floor	*1*	*0.70*	*1.200*	*1.150*	*0.966*	*Cum*
	U/S Floor	*1*	*3.25*	*1.200*	*2.830*	*11.037*	*Cum*
	D/S Floor	*1*	*3.25*	*1.200*	*0.850*	*3.315*	*Cum*
		1	*4.79*	*1.200*	*0.200*	*1.149*	*Cum*
		1	*2.00*	*1.200*	*0.650*	*1.558*	*Cum*
		1	*2.00*	*1.200*	*0.500*	*1.200*	*Cum*
	D/S Key Floor	*1*	*0.83*	*1.200*	*0.770*	*0.762*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.750*	*0.900*	*3.476*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						69.81	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
		1	*1.17*	*1.350*	*0.150*	*0.24*	*Cum*
		1	*0.38*	*1.350*	*0.150*	*0.08*	*Cum*
		1	*0.49*	*1.350*	*0.150*	*0.10*	*Cum*
		1	*4.82*	*1.350*	*0.150*	*0.98*	*Cum*
		1	*0.49*	*1.350*	*0.150*	*0.10*	*Cum*
		1	*1.59*	*1.350*	*0.150*	*0.32*	*Cum*
		1	*0.21*	*1.350*	*0.150*	*0.04*	*Cum*
		1	*0.50*	*1.350*	*0.150*	*0.10*	*Cum*
		1	*1.68*	*1.350*	*0.150*	*0.34*	*Cum*
		1	*0.54*	*1.350*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.37*	*2.05*	*0.150*	*0.84*	*Cum*
	Section 2-2	*2*	*3.65*	*1.14*	*0.150*	*1.25*	*Cum*
	Section 3-3	*2*	*3.30*	*1.02*	*0.150*	*1.01*	*Cum*
	Section 5-5	*2*	*2.23*	*2.20*	*0.150*	*1.47*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.75*	*0.300*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.45*	*0.600*	*1.31*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.600*	*0.54*	*Cum*
	TOTAL					**10.65**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*0.450*	*0.450*	*0.46*	*Cum*
		2	*1.14*	*1.102*	*2.174*	*5.48*	*Cum*
		2	*1.14*	*1.904*	*0.800*	*3.48*	*Cum*
	Section 2-2	*2*	*3.65*	*0.450*	*0.450*	*1.48*	*Cum*
		2	*3.65*	*0.645*	*0.650*	*3.06*	*Cum*
		2	*3.65*	*0.990*	*0.800*	*5.78*	*Cum*
	Section 3-3	*2*	*3.02*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.02*	*0.585*	*0.450*	*1.59*	*Cum*
		2	*3.02*	*0.870*	*0.650*	*3.41*	*Cum*
	Section 5-5	*2*	*2.19*	*0.450*	*0.450*	*0.89*	*Cum*
		2	*2.19*	*1.102*	*2.174*	*10.47*	*Cum*
		2	*2.19*	*1.904*	*0.500*	*4.16*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.70*	*1.200*	*1.000*	*0.84*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*6.50*	*1.200*	*0.500*	*3.90*	*Cum*
		1	*4.79*	*1.200*	*0.200*	*1.15*	*Cum*
		1	*0.24*	*1.200*	*0.350*	*0.10*	*Cum*
		1	*0.20*	*1.200*	*0.550*	*0.13*	*Cum*
		1	*1.80*	*1.200*	*0.650*	*1.40*	*Cum*
		1	*0.15*	*1.200*	*0.575*	*0.10*	*Cum*
		1	*1.85*	*1.200*	*0.500*	*1.11*	*Cum*
		1	*0.83*	*1.200*	*1.500*	*1.49*	*Cum*
	Crest	*1*	*1.09*	*1.200*	*1.814*	*2.38*	*Cum*
	TOTAL					**56.59**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*1.200*	*0.150*	*0.14*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*15.38*	*0.450*	*0.050*	*0.35*	*Cum*
	On Abutment Top (Right Side)	*1*	*15.38*	*0.450*	*0.050*	*0.35*	*Cum*
	TOTAL					**0.84**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**56.59**	**0.003**	**0.170**	**7850.0**	**1332.79**	**Kg**
	Total Weight in Metric Tonne					**1.33**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.14*		*0.450*	*2.06*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.14*		*2.174*	*9.94*	*Sqm*
		4		*1.102*	*2.174*	*9.58*	*Sqm*
		4	*1.14*		*0.800*	*3.66*	*Sqm*
		4		*1.904*	*0.800*	*6.09*	*Sqm*
	Section 2-2	*4*	*3.65*		*0.450*	*6.57*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.65*		*0.650*	*9.49*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*3.65*		*0.800*	*11.68*	*Sqm*
		4		*0.990*	*0.800*	*3.17*	*Sqm*
	Section 3-3	*4*	*3.02*		*0.450*	*5.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.02*		*0.450*	*5.43*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*3.02*		*0.650*	*7.84*	*Sqm*
		4		*0.870*	*0.650*	*2.26*	*Sqm*
	Section 5-5	*4*	*2.19*		*0.450*	*3.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.19*		*2.174*	*19.01*	*Sqm*
		4		*1.102*	*2.174*	*9.58*	*Sqm*
		4	*2.19*		*0.500*	*4.37*	*Sqm*
		4		*1.904*	*0.500*	*3.81*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*1.200*	*1.000*	*2.40*	*Sqm*
		2	*6.50*		*0.500*	*6.50*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.24*		*0.350*	*0.17*	*Sqm*
		2		*1.200*	*0.350*	*0.84*	*Sqm*
		2	*4.79*		*0.2*	*1.92*	*Sqm*
		2		*1.2*	*0.2*	*0.48*	*Sqm*
		2	*0.24*		*0.35*	*0.17*	*Sqm*
		2		*1.2*	*0.35*	*0.84*	*Sqm*
		2	*1.80*		*0.65*	*2.34*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.2*	*0.65*	*1.56*	*Sqm*
		2	*0.15*		*0.575*	*0.17*	*Sqm*
		2		*1.2*	*0.575*	*1.38*	*Sqm*
		2	*1.85*		*0.500*	*1.85*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.83*		*1.500*	*2.48*	*Sqm*
		2		*1.200*	*1.500*	*3.60*	*Sqm*
	Crest	*2*	*1.09*		*1.814*	*3.97*	*Sqm*
		2		*1.200*	*1.814*	*4.35*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.300*	*3.09*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.85*		*0.600*	*5.82*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**195.55**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.961*		*5.88*	*Sqm*
	TOTAL					**5.88**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.600*	*0.300*	**0.27**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.600*	*0.150*	**0.27**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*15.38*	*0.450*		*6.92*	*Sqm*
	On Abutment Top (Right Side)	*1*	*15.38*	*0.450*		*6.92*	*Sqm*
	TOTAL					**13.84**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		*9.568*		*9.568*	*Cum*
	Abutment						
	Section 1-1	*2*	*1.37*	*2.990*		*8.184*	*Cum*
	Section 2-2	*2*	*3.65*	*0.786*		*5.738*	*Cum*
	Section 3-3	*2*	*3.30*	*0.578*		*3.815*	*Cum*
	Section 5-5	*2*	*2.23*	*2.946*		*13.139*	*Cum*
	Section 6-6	*2*	*0.96*	*0.578*		*1.104*	*Cum*
	Toe wall	*2*	*5.15*	*0.150*	*0.600*	*1.545*	*Cum*
		2	*1.50*	*0.150*	*0.600*	*0.270*	*Cum*
	TOTAL					**43.36**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 2.550 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.94*	*1.37*	*1.307*	*3.375*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*1.307*	*6.862*	*Cum*
	Section 3-3	*2*	*2.20*	*0.93*	*1.107*	*4.530*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*1.307*	*9.409*	*Cum*
	Section 6-6	*2*	*0.15*	*0.93*	*1.107*	*0.309*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	U/S Floor	*1*	*2.000*	*0.800*	*1.307*	*2.091*	*Cum*
	D/S Floor	*1*	*2.000*	*0.800*	*0.850*	*1.360*	*Cum*
		1	*3.000*	*0.800*	*0.650*	*1.560*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	Toe Wall D/S Portion	*1*	*2.300*	*0.750*	*0.900*	*1.553*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*1.500*	*0.750*	*3.375*	*Cum*
						35.27	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.783*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*3.420*	*0.80*	*0.15*	*0.41*	*Cum*
		1	*0.283*	*0.80*	*0.15*	*0.03*	*Cum*
		1	*1.597*	*0.80*	*0.15*	*0.19*	*Cum*
		1	*0.782*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.94*	*1.37*	*0.15*	*0.39*	*Cum*
	Section 2-2	*2*	*2.50*	*1.05*	*0.15*	*0.79*	*Cum*
	Section 3-3	*2*	*2.20*	*0.93*	*0.15*	*0.61*	*Cum*
	Section 5-5	*2*	*2.37*	*1.52*	*0.15*	*1.08*	*Cum*
	Section 6-6	*2*	*0.15*	*0.93*	*0.15*	*0.04*	*Cum*
	Toe Wall D/S Portion	*1*	*2.30*	*0.75*	*0.30*	*0.52*	*Cum*
	Toe Wall D/S Portion	*1*	*2.00*	*0.45*	*0.60*	*0.54*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.50*	*0.15*	*0.34*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**5.80**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.72*	*0.45*	*0.45*	*0.29*	*Cum*
		2	*0.72*	*0.76*	*1.04*	*1.13*	*Cum*
		2	*0.72*	*1.22*	*0.50*	*0.87*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.60*	*0.50*	*1.50*	*Cum*
		2	*2.50*	*0.90*	*0.50*	*2.25*	*Cum*
	Section 3-3	*2*	*1.96*	*0.45*	*0.45*	*0.79*	*Cum*
		2	*1.96*	*0.54*	*0.30*	*0.64*	*Cum*
		2	*1.96*	*0.78*	*0.50*	*1.53*	*Cum*
	Section 5-5	*2*	*2.32*	*0.45*	*0.45*	*0.94*	*Cum*
		2	*2.32*	*0.76*	*1.04*	*3.66*	*Cum*
		2	*2.32*	*1.22*	*0.50*	*2.84*	*Cum*
	Section 6-6	*2*	*0.54*	*0.45*	*0.45*	*0.22*	*Cum*
		2	*0.54*	*0.54*	*0.30*	*0.17*	*Cum*
		2	*0.54*	*0.78*	*0.50*	*0.42*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*4.00*	*0.80*	*0.50*	*1.60*	*Cum*
		1	*0.35*	*0.80*	*0.20*	*0.06*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*2.80*	*0.80*	*0.50*	*1.12*	*Cum*
		1	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
	Crest	*1*	*0.71*	*0.80*	*0.71*	*0.40*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**22.21**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.80*	*0.15*	*0.07*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*8.36*	*0.45*	*0.05*	*0.19*	*Cum*
	On Abutment Top (Right Side)	*1*	*8.36*	*0.45*	*0.05*	*0.19*	*Cum*
	TOTAL					**0.45**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**22.21**	**0.30%**	**0.07**	**7850**	**523.07**	**Kg**
	Total Weight in Metric Tonne					**0.52**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.72*		*0.45*	*1.29*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.72*		*1.04*	*2.97*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*0.72*		*0.50*	*1.43*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.60*	*0.50*	*1.20*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.90*	*0.50*	*1.80*	*Sqm*
	Section 3-3	*4*	*1.96*		*0.45*	*3.53*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.96*		*0.30*	*2.35*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*1.96*		*0.50*	*3.92*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.45*	*4.18*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.32*		*1.04*	*9.63*	*Sqm*
		4		*0.76*	*1.04*	*3.16*	*Sqm*
		4	*2.32*		*0.50*	*4.64*	*Sqm*
		4		*1.22*	*0.50*	*2.44*	*Sqm*
	Section 6-6	*4*	*0.54*		*0.45*	*0.97*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.54*		*0.30*	*0.65*	*Sqm*
		4		*0.54*	*0.30*	*0.65*	*Sqm*
		4	*0.54*		*0.50*	*1.08*	*Sqm*
		4		*0.78*	*0.50*	*1.56*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.35*		*0.20*	*0.14*	*Sqm*
		2		*0.80*	*0.20*	*0.32*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*2.80*		*0.50*	*2.80*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
	Crest	*2*	*0.7095*		*0.708*	*1.00*	*Sqm*
		2		*0.8*	*0.708*	*1.13*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.30*		*0.30*	*1.38*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.00*		*0.60*	*2.40*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.50*	*0.15*	*0.90*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**100.48**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.80*		*8.40*	*Sqm*
	TOTAL					**8.40**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.50*	*0.30*	**0.23**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.50*	*0.15*	**0.23**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*8.36*	*0.45*		*3.76*	*Sqm*
	On Abutment Top (Right Side)	*1*	*8.36*	*0.45*		*3.76*	*Sqm*
	TOTAL					**7.52**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.34		1.34	**Cum**
	Abutment						
	Section 1-1	2	*0.94*	*0.40*		*0.757*	*Cum*
	Section 2-2	2	*2.50*	*0.40*		*1.985*	*Cum*
	Section 3-3	2	*2.20*	*0.27*		*1.201*	*Cum*
	Section 5-5	2	*2.37*	*0.40*		*1.901*	*Cum*
	Section 6-6	2	*0.15*	*0.27*		*0.082*	*Cum*
	D/S protection	2					
	Toe wall	2	*0.80*	*0.09*		*0.144*	*Cum*
		2	0.60	0.80		*0.960*	*Cum*
	TOTAL					**8.37**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR GULAB BIGHA MINOR						
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1	53.64			**53.64**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.543*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.787*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*5.567*	*0.80*	*0.15*	*0.67*	*Cum*
		1	*0.283*	*0.80*	*0.15*	*0.03*	*Cum*
		1	*0.367*	*0.80*	*0.15*	*0.04*	*Cum*
		1	*0.895*	*0.80*	*0.15*	*0.11*	*Cum*
		1	*0.543*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.85*	*1.71*	*0.15*	*0.44*	*Cum*
	Section 2-2	*2*	*3.50*	*1.16*	*0.15*	*1.22*	*Cum*
	Section 3-3	*2*	*1.20*	*1.04*	*0.15*	*0.38*	*Cum*
	Section 5-5	*2*	*2.51*	*1.86*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*0.99*	*1.04*	*0.15*	*0.31*	*Cum*
	Toe Wall D/S Portion	*1*	*4.87*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.57*	*0.45*	*0.60*	*1.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**8.24**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.62*	*0.93*	*1.60*	*1.86*	*Cum*
		2	*0.62*	*1.56*	*0.50*	*0.97*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.66*	*0.69*	*3.17*	*Cum*
		2	*3.50*	*1.01*	*0.50*	*3.55*	*Cum*
	Section 3-3	*2*	*0.90*	*0.45*	*0.45*	*0.37*	*Cum*
		2	*0.90*	*0.60*	*0.49*	*0.53*	*Cum*
		2	*0.90*	*0.89*	*0.50*	*0.81*	*Cum*
	Section 5-5	*2*	*2.47*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.47*	*0.93*	*1.60*	*7.38*	*Cum*
		2	*2.47*	*1.56*	*0.50*	*3.86*	*Cum*
	Section 6-6	*2*	*1.44*	*0.45*	*0.45*	*0.58*	*Cum*
		2	*1.44*	*0.60*	*0.49*	*0.84*	*Cum*
		2	*1.44*	*0.89*	*0.50*	*1.29*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*6.00*	*0.80*	*0.50*	*2.40*	*Cum*
		1	*0.50*	*0.80*	*0.20*	*0.08*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*1.80*	*0.80*	*0.50*	*0.72*	*Cum*
		1	*0.65*	*0.80*	*0.80*	*0.42*	*Cum*
	Crest	*1*	*0.99*	*0.80*	*1.21*	*0.96*	*Cum*
	TOTAL					**32.87**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.80*	*0.15*	*0.10*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.45*	*0.05*	*0.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.45*	*0.05*	*0.22*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**0.54**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.41**	**0.30%**	**0.10**	**7850**	**786.82**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.62*		*0.45*	*1.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.62*		*1.60*	*4.00*	*Sqm*
		4		*0.93*	*1.60*	*5.98*	*Sqm*
		4	*0.62*		*0.50*	*1.25*	*Sqm*
		4		*1.56*	*0.50*	*3.13*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*0.69*	*9.66*	*Sqm*
		4		*0.66*	*0.69*	*1.81*	*Sqm*
		4	*3.50*		*0.50*	*7.00*	*Sqm*
		4		*1.01*	*0.50*	*2.03*	*Sqm*
	Section 3-3	*4*	*0.90*		*0.45*	*1.63*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.90*		*0.49*	*1.77*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*0.90*		*0.50*	*1.81*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Section 5-5	*4*	*2.47*		*0.45*	*4.45*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.47*		*1.60*	*15.84*	*Sqm*
		4		*0.93*	*1.60*	*5.98*	*Sqm*
		4	*2.47*		*0.50*	*4.94*	*Sqm*
		4		*1.56*	*0.50*	*3.13*	*Sqm*
	Section 6-6	*4*	*1.44*		*0.45*	*2.59*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.44*		*0.49*	*2.82*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*1.44*		*0.50*	*2.88*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*6.00*		*0.50*	*6.00*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*0.80*	*0.20*	*0.32*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.65*		*0.80*	*1.04*	*Sqm*
		2		*0.80*	*0.80*	*1.28*	*Sqm*
	Crest	*2*	*0.994*		*1.213*	*2.41*	*Sqm*
		2		*0.8*	*1.213*	*1.94*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.87*		*0.30*	*2.92*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.57*		*0.60*	*5.48*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**135.91**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.03*		*8.14*	*Sqm*
	TOTAL					**8.14**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	In D/S Portion	*1*	*2.00*	*0.20*	*0.30*	**0.12**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.20*	*0.15*	**0.12**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.45*		*4.43*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.45*		*4.43*	*Sqm*
	TOTAL					**8.86**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		33.87		33.87	Cum
	TOTAL					**33.87**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.067 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.96*	*1.49*	*1.549*	*4.457*	*Cum*
	Section 2-2	*2*	*2.50*	*1.13*	*1.549*	*8.736*	*Cum*
	Section 3-3	*2*	*2.20*	*1.01*	*1.349*	*5.983*	*Cum*
	Section 5-5	*2*	*2.26*	*1.64*	*1.549*	*11.508*	*Cum*
	Section 6-6	*2*	*3.74*	*1.01*	*1.349*	*10.171*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.710*	*0.850*	*0.377*	*Cum*
	U/S Floor	*1*	*2.000*	*0.710*	*1.460*	*2.073*	*Cum*
	D/S Floor	*1*	*2.500*	*0.710*	*0.900*	*1.598*	*Cum*
		1	*2.500*	*0.710*	*0.700*	*1.243*	*Cum*
	D/S Key Floor	*1*	*0.625*	*0.710*	*0.850*	*0.377*	*Cum*
	Toe Wall D/S Portion	*1*	*4.600*	*0.750*	*0.900*	*3.105*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*1.010*	*0.750*	*2.273*	*Cum*
						51.90	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.71*	*0.15*	*0.06*	*Cum*
		1	*0.782*	*0.71*	*0.15*	*0.08*	*Cum*
		1	*3.876*	*0.71*	*0.15*	*0.41*	*Cum*
		1	*0.283*	*0.71*	*0.15*	*0.03*	*Cum*
		1	*1.138*	*0.71*	*0.15*	*0.12*	*Cum*
		1	*0.783*	*0.71*	*0.15*	*0.08*	*Cum*
		1	*0.542*	*0.71*	*0.15*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.96*	*1.49*	*0.15*	*0.43*	*Cum*
	Section 2-2	*2*	*2.50*	*1.13*	*0.15*	*0.85*	*Cum*
	Section 3-3	*2*	*2.20*	*1.01*	*0.15*	*0.67*	*Cum*
	Section 5-5	*2*	*2.26*	*1.64*	*0.15*	*1.11*	*Cum*
	Section 6-6	*2*	*3.74*	*1.01*	*0.15*	*1.13*	*Cum*
	Toe Wall D/S Portion	*1*	*4.60*	*0.75*	*0.30*	*1.04*	*Cum*
	Toe Wall D/S Portion	*1*	*4.30*	*0.45*	*0.60*	*1.16*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*1.01*	*0.15*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.00**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.74*	*0.45*	*0.45*	*0.30*	*Cum*
		2	*0.74*	*0.82*	*1.24*	*1.50*	*Cum*
		2	*0.74*	*1.34*	*0.50*	*0.99*	*Cum*
	Section 2-2	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.64*	*0.63*	*2.01*	*Cum*
		2	*2.50*	*0.98*	*0.50*	*2.45*	*Cum*
	Section 3-3	*2*	*1.92*	*0.45*	*0.45*	*0.78*	*Cum*
		2	*1.92*	*0.58*	*0.43*	*0.96*	*Cum*
		2	*1.92*	*0.86*	*0.50*	*1.65*	*Cum*
	Section 5-5	*2*	*2.26*	*0.45*	*0.45*	*0.92*	*Cum*
		2	*2.26*	*0.82*	*1.24*	*4.61*	*Cum*
		2	*2.26*	*1.34*	*0.50*	*3.04*	*Cum*
	Section 6-6	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.58*	*0.43*	*0.68*	*Cum*
		2	*1.37*	*0.86*	*0.50*	*1.17*	*Cum*
	Floor	*1*	*0.63*	*0.71*	*0.70*	*0.31*	*Cum*
		1	*4.50*	*0.71*	*0.55*	*1.76*	*Cum*
		1	*0.31*	*0.71*	*0.20*	*0.04*	*Cum*
		1	*0.20*	*0.71*	*0.40*	*0.06*	*Cum*
		1	*2.30*	*0.71*	*0.50*	*0.82*	*Cum*
		1	*0.63*	*0.71*	*0.70*	*0.31*	*Cum*
	Crest	*1*	*0.73*	*0.71*	*0.85*	*0.44*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**26.35**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.71*	*0.15*	*0.06*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.56*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.56*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.49**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.35**	**0.30%**	**0.08**	**7850**	**620.52**	**Kg**
	Total Weight in Metric Tonne					**0.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.74*		*0.45*	*1.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.74*		*1.24*	*3.66*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*0.74*		*0.50*	*1.48*	*Sqm*
		4		*1.34*	*0.50*	*2.69*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*0.63*	*6.30*	*Sqm*
		4		*0.64*	*0.63*	*1.61*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*0.98*	*0.50*	*1.96*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.45*	*3.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.92*		*0.43*	*3.30*	*Sqm*
		4		*0.58*	*0.43*	*1.00*	*Sqm*
		4	*1.92*		*0.50*	*3.84*	*Sqm*
		4		*0.86*	*0.50*	*1.72*	*Sqm*
	Section 5-5	*4*	*2.26*		*0.45*	*4.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.26*		*1.24*	*11.21*	*Sqm*
		4		*0.82*	*1.24*	*4.08*	*Sqm*
		4	*2.26*		*0.50*	*4.52*	*Sqm*
		4		*1.34*	*0.50*	*2.69*	*Sqm*
	Section 6-6	*4*	*1.37*		*0.45*	*2.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.43*	*2.35*	*Sqm*
		4		*0.58*	*0.43*	*1.00*	*Sqm*
		4	*1.37*		*0.50*	*2.73*	*Sqm*
		4		*0.86*	*0.50*	*1.72*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.71*	*0.70*	*0.99*	*Sqm*
		2	*4.50*		*0.55*	*4.95*	*Sqm*
		2		*0.71*	*0.55*	*0.78*	*Sqm*
		2	*0.31*		*0.20*	*0.12*	*Sqm*
		2		*0.71*	*0.20*	*0.28*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.71*	*0.40*	*0.57*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.71*	*0.50*	*0.71*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.71*	*0.70*	*0.99*	*Sqm*
	Crest	*2*	*0.733*		*0.849*	*1.24*	*Sqm*
		2		*0.71*	*0.849*	*1.21*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.60*		*0.30*	*2.76*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.30*		*0.60*	*5.16*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*1.01*	*0.15*	*0.61*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**117.57**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.93*		*5.78*	*Sqm*
	TOTAL					**5.78**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.11*	*0.30*	**0.05**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.11*	*0.15*	**0.05**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.56*	*0.45*		*4.30*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.56*	*0.45*		*4.30*	*Sqm*
	TOTAL					**8.61**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.58		1.58	**Cum**
	Abutment						
	Section 1-1	2	*0.96*	*0.59*		*1.131*	*Cum*
	Section 2-2	2	*2.50*	*0.59*		*2.935*	*Cum*
	Section 3-3	2	*2.20*	*0.41*		*1.804*	*Cum*
	Section 5-5	2	*2.26*	*0.59*		*2.653*	*Cum*
	Section 6-6	2	*3.74*	*0.41*		*3.067*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.60*	*0.15*	*0.60*	*0.828*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**15.79**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR MALHAD SUB DY						
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 0.450 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*1.756*	*7.619*	*Cum*
	Section 2-2	*2*	*3.00*	*1.67*	*1.756*	*17.553*	*Cum*
	Section 3-3	*2*	*5.20*	*1.55*	*1.556*	*25.018*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*1.756*	*19.675*	*Cum*
	Section 6-6	*2*	*0.80*	*1.11*	*1.556*	*2.777*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.500*	*0.850*	*1.328*	*Cum*
	U/S Floor	*1*	*2.500*	*2.500*	*1.756*	*10.975*	*Cum*
		1	*3.000*	*2.500*	*0.700*	*5.250*	*Cum*
	D/S Floor	*1*	*5.300*	*2.500*	*0.650*	*8.613*	*Cum*
	D/S Key Floor	*1*	*5.300*	*2.500*	*0.650*	*8.613*	*Cum*
	Toe Wall D/S Portion	*1*	*6.720*	*0.750*	*0.750*	*3.780*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						113.00	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.50*	*0.15*	*0.20*	*Cum*
		1	*0.782*	*2.50*	*0.15*	*0.29*	*Cum*
		1	*0.329*	*2.50*	*0.15*	*0.12*	*Cum*
		1	*0.070*	*2.50*	*0.15*	*0.03*	*Cum*
		1	*4.688*	*2.50*	*0.15*	*1.76*	*Cum*
		1	*0.353*	*2.50*	*0.15*	*0.13*	*Cum*
		1	*3.476*	*2.50*	*0.15*	*1.30*	*Cum*
		1	*1.118*	*2.50*	*0.15*	*0.42*	*Cum*
		1	*0.542*	*2.50*	*0.15*	*0.20*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*0.15*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.67*	*0.15*	*1.50*	*Cum*
	Section 3-3	*2*	*5.20*	*1.55*	*0.15*	*2.41*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*0.15*	*1.68*	*Cum*
	Section 6-6	*2*	*0.80*	*1.11*	*0.15*	*0.27*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.45*	*0.45*	*1.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*2.00*	*0.30*	*0.60*	*0.36*	*Cum*
	TOTAL					**14.57**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.05*	*0.98*	*1.77*	*3.64*	*Cum*
		2	*1.05*	*1.66*	*0.55*	*1.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.82*	*0.50*	*2.46*	*Cum*
		2	*3.00*	*1.02*	*0.66*	*4.03*	*Cum*
		2	*3.00*	*1.37*	*1.30*	*10.65*	*Cum*
	Section 3-3	*2*	*4.87*	*0.82*	*0.50*	*3.99*	*Cum*
		2	*4.87*	*0.96*	*0.46*	*4.29*	*Cum*
		2	*4.87*	*1.25*	*1.50*	*18.20*	*Cum*
	Section 5-5	*2*	*2.81*	*0.45*	*0.45*	*1.14*	*Cum*
		2	*2.81*	*0.98*	*1.77*	*9.79*	*Cum*
		2	*2.81*	*1.66*	*0.50*	*4.67*	*Cum*
	Section 6-6	*2*	*1.43*	*0.45*	*0.45*	*0.58*	*Cum*
		2	*1.43*	*0.63*	*0.60*	*1.08*	*Cum*
		2	*1.43*	*0.96*	*0.50*	*1.37*	*Cum*
	Deduct Dirt wall	*2*	*0.82*	*3.30*	*0.50*	*-2.71*	*Cum*
	Floor	*1*	*0.63*	*2.50*	*0.70*	*1.09*	*Cum*
		1	*1.28*	*2.50*	*0.50*	*1.61*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.05*	*2.50*	*0.53*	*0.07*	*Cum*
		1	*4.17*	*2.50*	*0.55*	*5.73*	*Cum*
		1	*0.20*	*2.50*	*0.40*	*0.20*	*Cum*
		1	*0.52*	*2.50*	*0.25*	*0.33*	*Cum*
		1	*5.30*	*2.50*	*0.50*	*6.63*	*Cum*
		1	*0.70*	*2.50*	*1.00*	*1.75*	*Cum*
	Crest	*1*	*0.96*	*2.50*	*1.30*	*3.10*	*Cum*
	TOTAL					**86.03**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*2.50*	*0.15*	*0.32*	*Cum*
	Coping over Abutment Top	*2*	*7.50*	*0.45*	*0.05*	*0.34*	*Cum*
	Slab Bridge						
	Slab	*1*	*3.30*	*6.5*	*0.34*	*7.19*	*Cum*
	Wearing coat	*1*	*3.30*	*6.50*	*0.07*	*1.50*	*Cum*
	Dirt wall	*2*	*0.40*	*6.5*	*0.45*	*2.31*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*6.5*	*0.30*	*3.20*	*Cum*
	TOTAL					**14.86**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*3.76*		*1.578*	*213.6*	*Kg*
a2	*10*	*17*	*6.90*		*0.616*	*72.3*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*24*	*3.68*		*0.616*	*54.4*	*Kg*
a5	*10*	*11*	*6.80*		*0.616*	*46.1*	*Kg*
x1	*12*	*54*	*2.50*		*0.888*	*119.9*	*Kg*
x2	*16*	*54*	*1.27*		*1.578*	*107.8*	*Kg*
x3	*10*	*24*	*3.20*		*0.616*	*47.3*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**86.03**	**0.30%**	**0.26**	**7850**	**2025.91**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**2695.32**	**Kg**
	TOTAL REINFORCEMENT STEEL (in MT)					**2.70**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.45*	*1.88*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.05*		*1.77*	*7.42*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*1.05*		*0.55*	*2.30*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.00*		*0.66*	*7.92*	*Sqm*
		4		*1.02*	*0.66*	*2.69*	*Sqm*
		4	*3.00*		*1.30*	*15.60*	*Sqm*
		4		*1.37*	*1.30*	*7.10*	*Sqm*
	Section 3-3	*4*	*4.87*		*0.50*	*9.74*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*4.87*		*0.46*	*8.96*	*Sqm*
		4		*0.96*	*0.46*	*1.76*	*Sqm*
		4	*4.87*		*1.50*	*29.22*	*Sqm*
		4		*1.25*	*1.50*	*7.48*	*Sqm*
	Section 5-5	*4*	*2.81*		*0.45*	*5.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.81*		*1.77*	*19.93*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*2.81*		*0.50*	*5.62*	*Sqm*
		4		*1.66*	*0.50*	*3.33*	*Sqm*
	Section 6-6	*4*	*1.43*		*0.45*	*2.57*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.43*		*0.60*	*3.42*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	*1.43*		*0.50*	*2.85*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.50*	*0.70*	*3.50*	*Sqm*
		2	*1.28*		*0.50*	*1.28*	*Sqm*
		2		*2.50*	*0.50*	*2.50*	*Sqm*
		2	*0.05*		*0.53*	*0.05*	*Sqm*
		2		*2.50*	*0.53*	*2.63*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.50*	*0.55*	*2.75*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.50*	*0.40*	*2.00*	*Sqm*
		2	*0.52*		*0.25*	*0.26*	*Sqm*
		2		*2.50*	*0.25*	*1.25*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.50*	*0.55*	*2.75*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*2.50*	*1.00*	*5.00*	*Sqm*
	Crest	*2*	*0.9575*		*1.295*	*2.48*	*Sqm*
		2		*2.5*	*1.295*	*6.48*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.30*	*4.03*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.45*	*6.05*	*Sqm*
		2		*0.45*	*0.45*	*0.41*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**240.13**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.23*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.90*	*0.30*	**1.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.90*	*0.15*	**1.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.50*	*0.45*		*3.38*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.50*	*0.45*		*3.38*	*Sqm*
	TOTAL					**6.75**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.69		5.69	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*0.69*		*1.645*	*Cum*
	Section 2-2	2	*3.00*	*0.23*		*1.380*	*Cum*
	Section 3-3	2	*5.20*	*0.21*		*2.193*	*Cum*
	Section 5-5	2	*2.85*	*0.69*		*3.923*	*Cum*
	Section 6-6	2	*0.80*	*0.66*		*1.068*	*Cum*
	D/S protection						
	Toe wall	2	*6.72*	*0.08*		*1.031*	*Cum*
	TOTAL					**16.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.075 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*2.044*	*8.869*	*Cum*
	Section 2-2	*2*	*3.00*	*1.23*	*2.044*	*15.085*	*Cum*
	Section 3-3	*2*	*1.11*	*1.11*	*1.844*	*4.544*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*2.044*	*22.902*	*Cum*
	Section 6-6	*2*	*1.09*	*1.11*	*1.844*	*4.462*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.320*	*0.850*	*1.233*	*Cum*
	U/S Floor	*1*	*2.000*	*2.320*	*1.460*	*6.774*	*Cum*
	D/S Floor	*1*	*-0.665*	*2.320*	*0.850*	*-1.311*	*Cum*
		1	*4.365*	*2.320*	*0.650*	*6.582*	*Cum*
	D/S Key Floor	*1*	*1.800*	*2.320*	*0.650*	*2.714*	*Cum*
	Toe Wall D/S Portion	*1*	*6.720*	*0.750*	*0.900*	*4.536*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						78.19	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.32*	*0.15*	*0.19*	*Cum*
		1	*0.782*	*2.32*	*0.15*	*0.27*	*Cum*
		1	*0.329*	*2.32*	*0.15*	*0.11*	*Cum*
		1	*0.070*	*2.32*	*0.15*	*0.02*	*Cum*
		1	*4.688*	*2.32*	*0.15*	*1.63*	*Cum*
		1	*0.353*	*2.32*	*0.15*	*0.12*	*Cum*
		1	*0.246*	*2.32*	*0.15*	*0.09*	*Cum*
		1	*1.118*	*2.32*	*0.15*	*0.39*	*Cum*
		1	*0.542*	*2.32*	*0.15*	*0.19*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*0.15*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.23*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.11*	*1.11*	*0.15*	*0.37*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*0.15*	*1.68*	*Cum*
	Section 6-6	*2*	*1.09*	*1.11*	*0.15*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.42*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.51**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.05*	*0.98*	*1.77*	*3.64*	*Cum*
		2	*1.05*	*1.66*	*0.55*	*1.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.80*	*3.31*	*Cum*
		2	*3.00*	*1.08*	*0.55*	*3.56*	*Cum*
	Section 3-3	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.63*	*0.60*	*1.04*	*Cum*
		2	*1.37*	*0.96*	*0.50*	*1.32*	*Cum*
	Section 5-5	*2*	*2.81*	*0.45*	*0.45*	*1.14*	*Cum*
		2	*2.81*	*0.98*	*1.77*	*9.79*	*Cum*
		2	*2.81*	*1.66*	*0.55*	*5.14*	*Cum*
	Section 6-6	*2*	*1.57*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.57*	*0.63*	*0.60*	*1.19*	*Cum*
		2	*1.57*	*0.96*	*0.50*	*1.51*	*Cum*
	Floor	*1*	*0.63*	*2.32*	*0.70*	*1.02*	*Cum*
		1	*1.34*	*2.32*	*0.50*	*1.55*	*Cum*
		1	*0.02*	*2.32*	*0.53*	*0.02*	*Cum*
		1	*0.20*	*2.32*	*0.40*	*0.19*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*4.17*	*2.32*	*0.55*	*5.31*	*Cum*
		1	*0.52*	*2.32*	*0.25*	*0.30*	*Cum*
		1	*0.20*	*2.32*	*0.40*	*0.19*	*Cum*
		1	*1.80*	*2.32*	*0.50*	*2.09*	*Cum*
	Crest	*1*	*0.70*	*2.32*	*1.00*	*1.62*	*Cum*
	TOTAL					**48.66**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.32*	*0.15*	*0.26*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.73*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.73*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.74**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**48.66**	**0.30%**	**0.15**	**7850**	**1145.92**	**Kg**
	Total Weight in Metric Tonne					**1.15**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.45*	*1.88*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.05*		*1.77*	*7.42*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*1.05*		*0.55*	*2.30*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.80*	*9.60*	*Sqm*
		4		*0.69*	*0.80*	*2.21*	*Sqm*
		4	*3.00*		*0.55*	*6.60*	*Sqm*
		4		*1.08*	*0.55*	*2.38*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.45*	*2.47*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.60*	*3.29*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.37*		*0.50*	*2.74*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Section 5-5	*4*	*2.81*		*0.45*	*5.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.81*		*1.77*	*19.93*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*2.81*		*0.55*	*6.18*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.45*	*2.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.57*		*0.60*	*3.77*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.57*		*0.50*	*3.14*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.32*	*0.70*	*3.25*	*Sqm*
		2	*1.34*		*0.50*	*1.34*	*Sqm*
		2		*2.32*	*0.50*	*2.32*	*Sqm*
		2	*0.02*		*0.53*	*0.02*	*Sqm*
		2		*2.32*	*0.53*	*2.44*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.32*	*0.40*	*1.86*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.32*	*0.55*	*2.55*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.32*	*0.50*	*2.32*	*Sqm*
	Crest	*2*	*0.7*		*1*	*1.40*	*Sqm*
		2		*2.32*	*1*	*4.64*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.30*	*4.03*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.42*		*0.60*	*7.70*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**168.70**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.23*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.72*	*0.30*	**1.03**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.72*	*0.15*	**1.03**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.73*	*0.45*		*4.83*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.73*	*0.45*		*4.83*	*Sqm*
	TOTAL					**9.66**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.13		3.13	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*1.20*		*2.870*	*Cum*
	Section 2-2	2	*3.00*	*0.75*		*4.500*	*Cum*
	Section 3-3	2	*1.11*	*0.69*		*1.538*	*Cum*
	Section 5-5	2	*2.85*	*1.20*		*6.846*	*Cum*
	Section 6-6	2	*1.09*	*0.69*		*1.511*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.72*	*0.15*	*0.60*	*1.210*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**24.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.925 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*2.504*	*10.865*	*Cum*
	Section 2-2	*2*	*3.00*	*1.23*	*2.504*	*18.480*	*Cum*
	Section 3-3	*2*	*1.11*	*1.11*	*2.304*	*5.678*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*2.504*	*28.056*	*Cum*
	Section 6-6	*2*	*1.09*	*1.11*	*2.304*	*5.575*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.320*	*0.850*	*1.233*	*Cum*
	U/S Floor	*1*	*2.000*	*2.320*	*1.460*	*6.774*	*Cum*
	D/S Floor	*1*	*-0.665*	*2.320*	*0.850*	*-1.311*	*Cum*
		1	*4.365*	*2.320*	*0.650*	*6.582*	*Cum*
	D/S Key Floor	*1*	*1.800*	*2.320*	*0.650*	*2.714*	*Cum*
	Toe Wall D/S Portion	*1*	*6.720*	*0.750*	*0.900*	*4.536*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						90.98	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.32*	*0.15*	*0.19*	*Cum*
		1	*0.782*	*2.32*	*0.15*	*0.27*	*Cum*
		1	*0.329*	*2.32*	*0.15*	*0.11*	*Cum*
		1	*0.070*	*2.32*	*0.15*	*0.02*	*Cum*
		1	*4.688*	*2.32*	*0.15*	*1.63*	*Cum*
		1	*0.353*	*2.32*	*0.15*	*0.12*	*Cum*
		1	*0.246*	*2.32*	*0.15*	*0.09*	*Cum*
		1	*1.118*	*2.32*	*0.15*	*0.39*	*Cum*
		1	*0.542*	*2.32*	*0.15*	*0.19*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*0.15*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.23*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.11*	*1.11*	*0.15*	*0.37*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*0.15*	*1.68*	*Cum*
	Section 6-6	*2*	*1.09*	*1.11*	*0.15*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.42*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.51**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.05*	*0.98*	*1.77*	*3.64*	*Cum*
		2	*1.05*	*1.66*	*0.55*	*1.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.80*	*3.31*	*Cum*
		2	*3.00*	*1.08*	*0.55*	*3.56*	*Cum*
	Section 3-3	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.63*	*0.60*	*1.04*	*Cum*
		2	*1.37*	*0.96*	*0.50*	*1.32*	*Cum*
	Section 5-5	*2*	*2.81*	*0.45*	*0.45*	*1.14*	*Cum*
		2	*2.81*	*0.98*	*1.77*	*9.79*	*Cum*
		2	*2.81*	*1.66*	*0.55*	*5.14*	*Cum*
	Section 6-6	*2*	*1.57*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.57*	*0.63*	*0.60*	*1.19*	*Cum*
		2	*1.57*	*0.96*	*0.50*	*1.51*	*Cum*
	Floor	*1*	*0.63*	*2.32*	*0.70*	*1.02*	*Cum*
		1	*1.34*	*2.32*	*0.50*	*1.55*	*Cum*
		1	*0.02*	*2.32*	*0.53*	*0.02*	*Cum*
		1	*0.20*	*2.32*	*0.40*	*0.19*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*4.17*	*2.32*	*0.55*	*5.31*	*Cum*
		1	*0.52*	*2.32*	*0.25*	*0.30*	*Cum*
		1	*0.20*	*2.32*	*0.40*	*0.19*	*Cum*
		1	*1.80*	*2.32*	*0.50*	*2.09*	*Cum*
	Crest	*1*	*0.70*	*2.32*	*1.00*	*1.62*	*Cum*
	TOTAL					**48.66**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.32*	*0.15*	*0.26*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.73*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.73*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.74**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**48.66**	**0.30%**	**0.15**	**7850**	**1145.92**	**Kg**
	Total Weight in Metric Tonne					**1.15**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.45*	*1.88*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.05*		*1.77*	*7.42*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*1.05*		*0.55*	*2.30*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.80*	*9.60*	*Sqm*
		4		*0.69*	*0.80*	*2.21*	*Sqm*
		4	*3.00*		*0.55*	*6.60*	*Sqm*
		4		*1.08*	*0.55*	*2.38*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.45*	*2.47*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.60*	*3.29*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.37*		*0.50*	*2.74*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Section 5-5	*4*	*2.81*		*0.45*	*5.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.81*		*1.77*	*19.93*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*2.81*		*0.55*	*6.18*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.45*	*2.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.57*		*0.60*	*3.77*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.57*		*0.50*	*3.14*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.32*	*0.70*	*3.25*	*Sqm*
		2	*1.34*		*0.50*	*1.34*	*Sqm*
		2		*2.32*	*0.50*	*2.32*	*Sqm*
		2	*0.02*		*0.53*	*0.02*	*Sqm*
		2		*2.32*	*0.53*	*2.44*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.32*	*0.40*	*1.86*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.32*	*0.55*	*2.55*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.32*	*0.50*	*2.32*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*0.7*		*1*	*1.40*	*Sqm*
		2		*2.32*	*1*	*4.64*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.30*	*4.03*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.42*		*0.60*	*7.70*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**168.70**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.23*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.72*	*0.30*	**1.03**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.72*	*0.15*	**1.03**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.73*	*0.45*		*4.83*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.73*	*0.45*		*4.83*	*Sqm*
	TOTAL					**9.66**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.52		5.52	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*1.53*		*3.660*	*Cum*
	Section 2-2	2	*3.00*	*0.91*		*5.448*	*Cum*
	Section 3-3	2	*1.11*	*0.69*		*1.538*	*Cum*
	Section 5-5	2	*2.85*	*1.53*		*8.729*	*Cum*
	Section 6-6	2	*1.09*	*0.69*		*1.511*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.72*	*0.15*	*0.60*	*1.210*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**30.02**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 2.725 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*1.479*	*6.418*	*Cum*
	Section 2-2	*2*	*3.00*	*1.23*	*1.479*	*10.915*	*Cum*
	Section 3-3	*2*	*1.11*	*1.11*	*1.279*	*3.152*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*1.479*	*16.572*	*Cum*
	Section 6-6	*2*	*1.09*	*1.11*	*1.279*	*3.095*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.320*	*0.850*	*1.233*	*Cum*
	U/S Floor	*1*	*2.000*	*2.320*	*1.460*	*6.774*	*Cum*
	D/S Floor	*1*	*-0.665*	*2.320*	*0.850*	*-1.311*	*Cum*
		1	*4.365*	*2.320*	*0.650*	*6.582*	*Cum*
	D/S Key Floor	*1*	*1.800*	*2.320*	*0.650*	*2.714*	*Cum*
	Toe Wall D/S Portion	*1*	*6.720*	*0.750*	*0.900*	*4.536*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						62.48	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.32*	*0.15*	*0.19*	*Cum*
		1	*0.782*	*2.32*	*0.15*	*0.27*	*Cum*
		1	*0.329*	*2.32*	*0.15*	*0.11*	*Cum*
		1	*0.070*	*2.32*	*0.15*	*0.02*	*Cum*
		1	*4.688*	*2.32*	*0.15*	*1.63*	*Cum*
		1	*0.353*	*2.32*	*0.15*	*0.12*	*Cum*
		1	*0.246*	*2.32*	*0.15*	*0.09*	*Cum*
		1	*1.118*	*2.32*	*0.15*	*0.39*	*Cum*
		1	*0.542*	*2.32*	*0.15*	*0.19*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*0.15*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.23*	*0.15*	*1.11*	*Cum*
	Section 3-3	*2*	*1.11*	*1.11*	*0.15*	*0.37*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*0.15*	*1.68*	*Cum*
	Section 6-6	*2*	*1.09*	*1.11*	*0.15*	*0.36*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.42*	*0.45*	*0.60*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**11.51**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.05*	*0.98*	*1.77*	*3.64*	*Cum*
		2	*1.05*	*1.66*	*0.55*	*1.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.45*	*0.45*	*1.22*	*Cum*
		2	*3.00*	*0.69*	*0.80*	*3.31*	*Cum*
		2	*3.00*	*1.08*	*0.55*	*3.56*	*Cum*
	Section 3-3	*2*	*1.37*	*0.45*	*0.45*	*0.55*	*Cum*
		2	*1.37*	*0.63*	*0.60*	*1.04*	*Cum*
		2	*1.37*	*0.96*	*0.50*	*1.32*	*Cum*
	Section 5-5	*2*	*2.81*	*0.45*	*0.45*	*1.14*	*Cum*
		2	*2.81*	*0.98*	*1.77*	*9.79*	*Cum*
		2	*2.81*	*1.66*	*0.55*	*5.14*	*Cum*
	Section 6-6	*2*	*1.57*	*0.45*	*0.45*	*0.64*	*Cum*
		2	*1.57*	*0.63*	*0.60*	*1.19*	*Cum*
		2	*1.57*	*0.96*	*0.50*	*1.51*	*Cum*
	Floor	*1*	*0.63*	*2.32*	*0.70*	*1.02*	*Cum*
		1	*1.34*	*2.32*	*0.50*	*1.55*	*Cum*
		1	*0.02*	*2.32*	*0.53*	*0.02*	*Cum*
		1	*0.20*	*2.32*	*0.40*	*0.19*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*4.17*	*2.32*	*0.55*	*5.31*	*Cum*
		1	*0.52*	*2.32*	*0.25*	*0.30*	*Cum*
		1	*0.20*	*2.32*	*0.40*	*0.19*	*Cum*
		1	*1.80*	*2.32*	*0.50*	*2.09*	*Cum*
	Crest	*1*	*0.96*	*2.32*	*1.29*	*2.87*	*Cum*
	TOTAL					**49.91**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.32*	*0.15*	*0.26*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.73*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.73*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.74**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**49.91**	**0.30%**	**0.15**	**7850**	**1175.37**	**Kg**
	Total Weight in Metric Tonne					**1.18**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.45*	*1.88*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.05*		*1.77*	*7.42*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*1.05*		*0.55*	*2.30*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.45*	*5.40*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.00*		*0.80*	*9.60*	*Sqm*
		4		*0.69*	*0.80*	*2.21*	*Sqm*
		4	*3.00*		*0.55*	*6.60*	*Sqm*
		4		*1.08*	*0.55*	*2.38*	*Sqm*
	Section 3-3	*4*	*1.37*		*0.45*	*2.47*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.37*		*0.60*	*3.29*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.37*		*0.50*	*2.74*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Section 5-5	*4*	*2.81*		*0.45*	*5.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.81*		*1.77*	*19.93*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*2.81*		*0.55*	*6.18*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.45*	*2.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.57*		*0.60*	*3.77*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.57*		*0.50*	*3.14*	*Sqm*
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.32*	*0.70*	*3.25*	*Sqm*
		2	*1.34*		*0.50*	*1.34*	*Sqm*
		2		*2.32*	*0.50*	*2.32*	*Sqm*
		2	*0.02*		*0.53*	*0.02*	*Sqm*
		2		*2.32*	*0.53*	*2.44*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.32*	*0.40*	*1.86*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.32*	*0.55*	*2.55*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*2.32*	*0.50*	*2.32*	*Sqm*
	Crest	*2*	*0.9575*		*1.294*	*2.48*	*Sqm*
		2		*2.32*	*1.294*	*6.00*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.30*	*4.03*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.42*		*0.60*	*7.70*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**171.14**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.23*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.72*	*0.30*	**1.03**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.72*	*0.15*	**1.03**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.73*	*0.45*		*4.83*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.73*	*0.45*		*4.83*	*Sqm*
	TOTAL					**9.66**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
	Under U/S floor	1	5.40			5.40	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*0.42*		*0.997*	*Cum*
	Section 2-2	2	*3.00*	*0.42*		*2.502*	*Cum*
	Section 3-3	2	*1.11*	*0.44*		*0.979*	*Cum*
	Section 5-5	2	*2.85*	*0.42*		*2.379*	*Cum*
	Section 6-6	2	*1.09*	*0.44*		*0.961*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.72*	*0.15*	*0.60*	*1.210*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**16.82**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.4.025 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.04*	*1.608*	*1.785*	*5.956*	*Cum*
	Section 2-2	*2*	*3.20*	*1.242*	*1.785*	*14.189*	*Cum*
	Section 3-3	*2*	*1.50*	*1.122*	*1.585*	*5.335*	*Cum*
	Section 5-5	*2*	*2.68*	*1.758*	*1.785*	*16.839*	*Cum*
	Section 6-6	*2*	*1.11*	*1.122*	*1.585*	*3.941*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.180*	*0.850*	*1.158*	*Cum*
	U/S Floor	*1*	*2.00*	*2.180*	*1.510*	*6.584*	*Cum*
	D/S Floor	*1*	*3.00*	*2.180*	*0.850*	*5.559*	*Cum*
		1	*2.00*	*2.180*	*0.650*	*2.834*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.180*	*0.850*	*1.158*	*Cum*
	Toe Wall D/S Portion	*1*	*6.46*	*0.750*	*0.900*	*4.361*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						69.71	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.180*	*0.150*	*0.18*	*Cum*
		1	*0.78*	*2.180*	*0.150*	*0.26*	*Cum*
		1	*0.03*	*2.180*	*0.150*	*0.01*	*Cum*
		1	*0.07*	*2.180*	*0.150*	*0.02*	*Cum*
		1	*4.25*	*2.180*	*0.150*	*1.39*	*Cum*
		1	*0.35*	*2.180*	*0.150*	*0.12*	*Cum*
		1	*0.64*	*2.180*	*0.150*	*0.21*	*Cum*
		1	*0.78*	*2.180*	*0.150*	*0.26*	*Cum*
		1	*0.54*	*2.180*	*0.150*	*0.18*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.04*	*1.608*	*0.150*	*0.50*	*Cum*
	Section 2-2	*2*	*3.20*	*1.242*	*0.150*	*1.19*	*Cum*
	Section 3-3	*2*	*1.50*	*1.122*	*0.150*	*0.50*	*Cum*
	Section 5-5	*2*	*2.68*	*1.758*	*0.150*	*1.42*	*Cum*
	Section 6-6	*2*	*1.11*	*1.122*	*0.150*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*6.46*	*0.750*	*0.300*	*1.45*	*Cum*
	Toe Wall D/S Portion	*1*	*6.16*	*0.450*	*0.600*	*1.66*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**10.79**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.89*	*0.450*	*0.450*	*0.36*	*Cum*
		2	*0.89*	*0.879*	*1.430*	*2.23*	*Cum*
		2	*0.89*	*1.458*	*0.550*	*1.42*	*Cum*
	Section 2-2	*2*	*3.20*	*0.450*	*0.450*	*1.30*	*Cum*
		2	*3.20*	*0.696*	*0.820*	*3.65*	*Cum*
		2	*3.20*	*1.092*	*0.550*	*3.84*	*Cum*
	Section 3-3	*2*	*1.16*	*0.450*	*0.450*	*0.47*	*Cum*
		2	*1.16*	*0.636*	*0.620*	*0.92*	*Cum*
		2	*1.16*	*0.972*	*0.500*	*1.13*	*Cum*
	Section 5-5	*2*	*2.64*	*0.450*	*0.450*	*1.07*	*Cum*
		2	*2.64*	*0.879*	*1.430*	*6.63*	*Cum*
		2	*2.64*	*1.458*	*0.500*	*3.85*	*Cum*
	Section 6-6	*2*	*1.67*	*0.450*	*0.450*	*0.68*	*Cum*
		2	*1.67*	*0.636*	*0.620*	*1.32*	*Cum*
		2	*1.67*	*0.972*	*0.500*	*1.62*	*Cum*
	Floor	*1*	*0.63*	*2.180*	*0.700*	*0.95*	*Cum*
		1	*1.04*	*2.180*	*0.500*	*1.13*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*3.97*	*2.180*	*0.550*	*4.75*	*Cum*
		1	*0.20*	*2.180*	*0.400*	*0.17*	*Cum*
		1	*0.28*	*2.180*	*0.250*	*0.15*	*Cum*
		1	*1.80*	*2.180*	*0.500*	*1.96*	*Cum*
		1	*0.63*	*2.180*	*0.700*	*0.95*	*Cum*
	Crest	*1*	*0.81*	*2.180*	*0.995*	*1.75*	*Cum*
	TOTAL					**42.33**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.180*	*0.150*	*0.21*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.35*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.35*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.68**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**42.33**	**0.00**	**0.127**	**7850.0**	**996.78**	**Kg**
	Total Weight in Metric Tonne					**1.00**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.89*		*0.450*	*1.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.89*		*1.430*	*5.08*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*0.89*		*0.550*	*1.95*	*Sqm*
		4		*1.458*	*0.550*	*3.21*	*Sqm*
	Section 2-2	*4*	*3.20*		*0.450*	*5.76*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.20*		*0.820*	*10.50*	*Sqm*
		4		*0.696*	*0.820*	*2.28*	*Sqm*
		4	*3.20*		*0.550*	*7.04*	*Sqm*
		4		*1.092*	*0.550*	*2.40*	*Sqm*
	Section 3-3	*4*	*1.16*		*0.450*	*2.10*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.16*		*0.620*	*2.89*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*1.16*		*0.500*	*2.33*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 5-5	*4*	*2.64*		*0.450*	*4.75*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.64*		*1.430*	*15.10*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*2.64*		*0.500*	*5.28*	*Sqm*
		4		*1.458*	*0.500*	*2.92*	*Sqm*
	Section 6-6	*4*	*1.67*		*0.450*	*3.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.67*		*0.620*	*4.14*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*1.67*		*0.500*	*3.34*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.180*	*0.700*	*3.05*	*Sqm*
		2	*1.04*		*0.500*	*1.04*	*Sqm*
		2		*2.180*	*0.500*	*2.18*	*Sqm*
		2	*3.97*		*0.550*	*4.36*	*Sqm*
		2		*2.180*	*0.550*	*2.40*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.180*	*0.400*	*1.74*	*Sqm*
		2	*0.28*		*0.250*	*0.14*	*Sqm*
		2		*2.180*	*0.250*	*1.09*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*2.180*	*0.500*	*2.18*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.180*	*0.700*	*3.05*	*Sqm*
	Crest	*2*	*0.81*		*0.995*	*1.61*	*Sqm*
		2		*2.180*	*0.995*	*4.34*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.46*		*0.300*	*3.88*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.16*		*0.600*	*7.39*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**157.03**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.268*		*9.07*	*Sqm*
	TOTAL					**9.07**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.580*	*0.150*	**0.95**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.35*	*0.450*		*4.66*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.35*	*0.450*		*4.66*	*Sqm*
	TOTAL					**9.32**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.426		2.43	Cum
	Abutment						
	Section 1-1	2	*1.04*	*0.710*		*1.473*	*Cum*
	Section 2-2	2	*3.20*	*0.700*		*4.480*	*Cum*
	Section 3-3	2	*1.50*	*0.678*		*2.034*	*Cum*
	Section 5-5	2	*2.68*	*0.710*		*3.810*	*Cum*
	Section 6-6	2	*1.11*	*0.678*		*1.502*	*Cum*
	Toe wall	2	*6.46*	*0.150*	*0.600*	*1.938*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**18.02**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 5.300 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.92*	*1.36*	*1.017*	*2.531*	*Cum*
	Section 2-2	*2*	*2.25*	*1.14*	*1.017*	*5.231*	*Cum*
	Section 3-3	*2*	*2.45*	*1.02*	*0.817*	*4.095*	*Cum*
	Section 5-5	*2*	*2.63*	*1.51*	*1.017*	*8.065*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.817*	*1.603*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.800*	*0.850*	*0.956*	*Cum*
	U/S Floor	*1*	*2.000*	*1.800*	*1.460*	*5.256*	*Cum*
	D/S Floor	*1*	*2.000*	*1.800*	*0.850*	*3.060*	*Cum*
	D/S Key Floor	*1*	*2.546*	*1.800*	*0.650*	*2.979*	*Cum*
	Toe Wall D/S Portion	*1*	*5.764*	*0.750*	*0.900*	*3.891*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						39.02	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.80*	*0.15*	*0.15*	*Cum*
		1	*0.782*	*1.80*	*0.15*	*0.21*	*Cum*
		1	*3.376*	*1.80*	*0.15*	*0.91*	*Cum*
		1	*0.282*	*1.80*	*0.15*	*0.08*	*Cum*
		1	*1.388*	*1.80*	*0.15*	*0.37*	*Cum*
		1	*0.782*	*1.80*	*0.15*	*0.21*	*Cum*
		1	*0.542*	*1.80*	*0.15*	*0.15*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.92*	*1.36*	*0.15*	*0.37*	*Cum*
	Section 2-2	*2*	*2.25*	*1.14*	*0.15*	*0.77*	*Cum*
	Section 3-3	*2*	*2.45*	*1.02*	*0.15*	*0.75*	*Cum*
	Section 5-5	*2*	*2.63*	*1.51*	*0.15*	*1.19*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.76*	*0.75*	*0.30*	*1.30*	*Cum*
	Toe Wall D/S Portion	*1*	*5.46*	*0.45*	*0.60*	*1.48*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**9.04**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.77*	*0.45*	*0.45*	*0.31*	*Cum*
		2	*0.77*	*0.75*	*1.01*	*1.17*	*Cum*
		2	*0.77*	*1.21*	*0.50*	*0.93*	*Cum*
	Section 2-2	*2*	*2.25*	*0.45*	*0.45*	*0.91*	*Cum*
		2	*2.25*	*0.65*	*0.66*	*1.91*	*Cum*
		2	*2.25*	*0.99*	*0.50*	*2.23*	*Cum*
	Section 3-3	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.59*	*0.46*	*1.15*	*Cum*
		2	*2.16*	*0.87*	*0.50*	*1.89*	*Cum*
	Section 5-5	*2*	*2.59*	*0.45*	*0.45*	*1.05*	*Cum*
		2	*2.59*	*0.75*	*1.01*	*3.94*	*Cum*
		2	*2.59*	*1.21*	*0.50*	*3.12*	*Cum*
	Section 6-6	*2*	*1.40*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.40*	*0.59*	*0.46*	*0.74*	*Cum*
		2	*1.40*	*0.87*	*0.50*	*1.22*	*Cum*
	Floor	*1*	*0.63*	*1.80*	*0.70*	*0.79*	*Cum*
		1	*4.00*	*1.80*	*0.50*	*3.60*	*Cum*
		1	*0.31*	*1.80*	*0.25*	*0.14*	*Cum*
		1	*0.20*	*1.80*	*0.40*	*0.14*	*Cum*
		1	*2.55*	*1.80*	*0.50*	*2.29*	*Cum*
	Crest	*1*	*0.70*	*1.80*	*0.63*	*0.78*	*Cum*
	TOTAL					**29.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.80*	*0.15*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.83*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.83*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.60**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**29.75**	**0.30%**	**0.09**	**7850**	**700.71**	**Kg**
	Total Weight in Metric Tonne					**0.70**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.77*		*0.45*	*1.38*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.77*		*1.01*	*3.10*	*Sqm*
		4		*0.75*	*1.01*	*3.04*	*Sqm*
		4	*0.77*		*0.50*	*1.53*	*Sqm*
		4		*1.21*	*0.50*	*2.41*	*Sqm*
	Section 2-2	*4*	*2.25*		*0.45*	*4.05*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.25*		*0.66*	*5.90*	*Sqm*
		4		*0.65*	*0.66*	*1.69*	*Sqm*
		4	*2.25*		*0.50*	*4.50*	*Sqm*
		4		*0.99*	*0.50*	*1.99*	*Sqm*
	Section 3-3	*4*	*2.16*		*0.45*	*3.89*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*0.46*	*3.94*	*Sqm*
		4		*0.59*	*0.46*	*1.07*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*0.87*	*0.50*	*1.75*	*Sqm*
	Section 5-5	*4*	*2.59*		*0.45*	*4.66*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.59*		*1.01*	*10.46*	*Sqm*
		4		*0.75*	*1.01*	*3.04*	*Sqm*
		4	*2.59*		*0.50*	*5.18*	*Sqm*
		4		*1.21*	*0.50*	*2.41*	*Sqm*
	Section 6-6	*4*	*1.40*		*0.45*	*2.51*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.40*		*0.46*	*2.54*	*Sqm*
		4		*0.59*	*0.46*	*1.07*	*Sqm*
		4	*1.40*		*0.50*	*2.79*	*Sqm*
		4		*0.87*	*0.50*	*1.75*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.80*	*0.70*	*2.52*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*1.80*	*0.50*	*1.80*	*Sqm*
		2	*2.55*		*0.50*	*2.55*	*Sqm*
		2		*1.80*	*0.50*	*1.80*	*Sqm*
	Crest	*2*	*0.696*		*0.625*	*0.87*	*Sqm*
		2		*1.8*	*0.625*	*2.25*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.76*		*0.30*	*3.46*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.46*		*0.60*	*6.56*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**118.27**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.97*		*5.91*	*Sqm*
	TOTAL					**5.91**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.20*	*0.30*	**0.54**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.20*	*0.15*	**0.54**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.83*	*0.45*		*4.42*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.83*	*0.45*		*4.42*	*Sqm*
	TOTAL					**8.84**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.98		0.98	**Cum**
	Abutment						
	Section 1-1	2	*0.92*	*0.23*		*0.413*	*Cum*
	Section 2-2	2	*2.25*	*0.23*		*1.013*	*Cum*
	Section 3-3	2	*2.45*	*0.23*		*1.103*	*Cum*
	Section 5-5	2	*2.63*	*0.23*		*1.185*	*Cum*
	Section 6-6	2	*0.96*	*0.23*		*0.432*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.76*	*0.15*	*0.60*	*1.038*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**7.97**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 5.900 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.92*	*1.36*	*1.003*	*2.496*	*Cum*
	Section 2-2	*2*	*2.25*	*1.14*	*1.003*	*5.159*	*Cum*
	Section 3-3	*2*	*2.45*	*1.02*	*0.803*	*4.025*	*Cum*
	Section 5-5	*2*	*2.63*	*1.51*	*1.003*	*7.954*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.803*	*1.576*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.800*	*0.850*	*0.956*	*Cum*
	U/S Floor	*1*	*0.913*	*1.800*	*1.460*	*2.399*	*Cum*
	D/S Floor	*1*	*3.087*	*1.800*	*0.850*	*4.723*	*Cum*
	D/S Key Floor	*1*	*2.546*	*1.800*	*0.650*	*2.979*	*Cum*
	Toe Wall D/S Portion	*1*	*5.764*	*0.750*	*0.900*	*3.891*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						37.51	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.80*	*0.15*	*0.15*	*Cum*
		1	*0.782*	*1.80*	*0.15*	*0.21*	*Cum*
		1	*3.376*	*1.80*	*0.15*	*0.91*	*Cum*
		1	*0.282*	*1.80*	*0.15*	*0.08*	*Cum*
		1	*1.388*	*1.80*	*0.15*	*0.37*	*Cum*
		1	*0.782*	*1.80*	*0.15*	*0.21*	*Cum*
		1	*0.542*	*1.80*	*0.15*	*0.15*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.92*	*1.36*	*0.15*	*0.37*	*Cum*
	Section 2-2	*2*	*2.25*	*1.14*	*0.15*	*0.77*	*Cum*
	Section 3-3	*2*	*2.45*	*1.02*	*0.15*	*0.75*	*Cum*
	Section 5-5	*2*	*2.63*	*1.51*	*0.15*	*1.19*	*Cum*
	Section 6-6	*2*	*0.96*	*1.02*	*0.15*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.76*	*0.75*	*0.30*	*1.30*	*Cum*
	Toe Wall D/S Portion	*1*	*5.46*	*0.45*	*0.60*	*1.48*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.60*	*0.15*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**9.04**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.77*	*0.45*	*0.45*	*0.31*	*Cum*
		2	*0.77*	*0.75*	*1.01*	*1.17*	*Cum*
		2	*0.77*	*1.21*	*0.50*	*0.93*	*Cum*
	Section 2-2	*2*	*2.25*	*0.45*	*0.45*	*0.91*	*Cum*
		2	*2.25*	*0.65*	*0.66*	*1.91*	*Cum*
		2	*2.25*	*0.99*	*0.50*	*2.23*	*Cum*
	Section 3-3	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.59*	*0.46*	*1.15*	*Cum*
		2	*2.16*	*0.87*	*0.50*	*1.89*	*Cum*
	Section 5-5	*2*	*2.59*	*0.45*	*0.45*	*1.05*	*Cum*
		2	*2.59*	*0.75*	*1.01*	*3.94*	*Cum*
		2	*2.59*	*1.21*	*0.50*	*3.12*	*Cum*
	Section 6-6	*2*	*1.40*	*0.45*	*0.45*	*0.57*	*Cum*
		2	*1.40*	*0.59*	*0.46*	*0.74*	*Cum*
		2	*1.40*	*0.87*	*0.50*	*1.22*	*Cum*
	Floor	*1*	*0.63*	*1.80*	*0.70*	*0.79*	*Cum*
		1	*4.00*	*1.80*	*0.50*	*3.60*	*Cum*
		1	*0.31*	*1.80*	*0.25*	*0.14*	*Cum*
		1	*0.20*	*1.80*	*0.40*	*0.14*	*Cum*
		1	*2.55*	*1.80*	*0.50*	*2.29*	*Cum*
	Crest	*1*	*0.71*	*1.80*	*0.76*	*0.98*	*Cum*
	TOTAL					**29.95**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.80*	*0.15*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.83*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.83*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.60**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**29.95**	**0.30%**	**0.09**	**7850**	**705.32**	**Kg**
	Total Weight in Metric Tonne					**0.71**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.77*		*0.45*	*1.38*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.77*		*1.01*	*3.10*	*Sqm*
		4		*0.75*	*1.01*	*3.04*	*Sqm*
		4	*0.77*		*0.50*	*1.53*	*Sqm*
		4		*1.21*	*0.50*	*2.41*	*Sqm*
	Section 2-2	*4*	*2.25*		*0.45*	*4.05*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.25*		*0.66*	*5.90*	*Sqm*
		4		*0.65*	*0.66*	*1.69*	*Sqm*
		4	*2.25*		*0.50*	*4.50*	*Sqm*
		4		*0.99*	*0.50*	*1.99*	*Sqm*
	Section 3-3	*4*	*2.16*		*0.45*	*3.89*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*0.46*	*3.94*	*Sqm*
		4		*0.59*	*0.46*	*1.07*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*0.87*	*0.50*	*1.75*	*Sqm*
	Section 5-5	*4*	*2.59*		*0.45*	*4.66*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.59*		*1.01*	*10.46*	*Sqm*
		4		*0.75*	*1.01*	*3.04*	*Sqm*
		4	*2.59*		*0.50*	*5.18*	*Sqm*
		4		*1.21*	*0.50*	*2.41*	*Sqm*
	Section 6-6	*4*	*1.40*		*0.45*	*2.51*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.40*		*0.46*	*2.54*	*Sqm*
		4		*0.59*	*0.46*	*1.07*	*Sqm*
		4	*1.40*		*0.50*	*2.79*	*Sqm*
		4		*0.87*	*0.50*	*1.75*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.80*	*0.70*	*2.52*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*1.80*	*0.50*	*1.80*	*Sqm*
		2	*2.55*		*0.50*	*2.55*	*Sqm*
		2		*1.80*	*0.50*	*1.80*	*Sqm*
	Crest	*2*	*0.7135*		*0.762*	*1.09*	*Sqm*
		2		*1.8*	*0.762*	*2.74*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.76*		*0.30*	*3.46*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.46*		*0.60*	*6.56*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**118.98**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.97*		*5.91*	*Sqm*
	TOTAL					**5.91**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*1.20*	*0.30*	**0.54**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*1.20*	*0.15*	**0.54**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.83*	*0.45*		*4.42*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.83*	*0.45*		*4.42*	*Sqm*
	TOTAL					**8.84**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.36		1.36	**Cum**
	Abutment						
	Section 1-1	2	*0.92*	*0.23*		*0.413*	*Cum*
	Section 2-2	2	*2.25*	*0.23*		*1.013*	*Cum*
	Section 3-3	2	*2.45*	*0.23*		*1.103*	*Cum*
	Section 5-5	2	*2.63*	*0.23*		*1.185*	*Cum*
	Section 6-6	2	*0.96*	*0.23*		*0.432*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.76*	*0.15*	*0.60*	*1.038*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**8.34**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 6.750 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		66.09		**66.09**	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.57*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.54*	*1.72*	*0.15*	*1.31*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.49**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.83*	*1.36*	*4.87*	*Cum*
		2	*2.16*	*1.42*	*0.50*	*3.06*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*1.19*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.19*	*0.62*	*0.55*	*0.80*	*Cum*
		2	*1.19*	*0.93*	*0.50*	*1.10*	*Cum*
	Section 5-5	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.83*	*1.36*	*5.63*	*Cum*
		2	*2.50*	*1.42*	*0.50*	*3.54*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.85*	*1.46*	*0.95*	*1.18*	*Cum*
	TOTAL					**37.04**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.46*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	37.04	0.30%	0.11	7850	872.22	Kg
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.16*		*0.45*	*3.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*1.36*	*11.77*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.45*	*2.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.19*		*0.55*	*2.61*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.19*		*0.50*	*2.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*1.36*	*13.59*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.8505*		*0.952*	*1.62*	*Sqm*
		2		*1.46*	*0.952*	*2.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	TOTAL					**9.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		26.33		26.33	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH. 7.775 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*1.288*	*5.177*	*Cum*
	Section 2-2	*2*	*2.95*	*1.08*	*1.288*	*8.207*	*Cum*
	Section 3-3	*2*	*2.75*	*0.96*	*1.088*	*5.745*	*Cum*
	Section 5-5	*2*	*2.09*	*1.87*	*1.288*	*10.058*	*Cum*
	Section 6-6	*2*	*0.83*	*0.96*	*1.088*	*1.732*	*Cum*
	U/S Key Floor	*1*	*0.625*	*0.800*	*0.850*	*0.425*	*Cum*
	U/S Floor	*1*	*2.800*	*0.800*	*2.238*	*5.013*	*Cum*
	D/S Floor	*1*	*2.750*	*0.800*	*0.850*	*1.870*	*Cum*
		1	*2.950*	*0.800*	*0.650*	*1.534*	*Cum*
	D/S Key Floor	*1*	*0.700*	*0.800*	*1.150*	*0.644*	*Cum*
	Toe Wall D/S Portion	*1*	*4.450*	*0.750*	*0.900*	*3.004*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.500*	*0.600*	*0.750*	*1.350*	*Cum*
						44.76	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.782*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*0.676*	*0.80*	*1.15*	*0.62*	*Cum*
		1	*0.070*	*0.80*	*2.15*	*0.12*	*Cum*
		1	*4.150*	*0.80*	*0.15*	*0.50*	*Cum*
		1	*0.353*	*0.80*	*0.15*	*0.04*	*Cum*
		1	*1.438*	*0.80*	*0.15*	*0.17*	*Cum*
		1	*1.118*	*0.80*	*0.15*	*0.13*	*Cum*
		1	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.17*	*1.72*	*0.15*	*0.60*	*Cum*
	Section 2-2	*2*	*2.95*	*1.08*	*0.15*	*0.96*	*Cum*
	Section 3-3	*2*	*2.75*	*0.96*	*0.15*	*0.79*	*Cum*
	Section 5-5	*2*	*2.09*	*1.87*	*0.15*	*1.17*	*Cum*
	Section 6-6	*2*	*0.83*	*0.96*	*0.15*	*0.24*	*Cum*
	Toe Wall D/S Portion	*1*	*4.45*	*0.75*	*0.30*	*1.00*	*Cum*
	Toe Wall D/S Portion	*1*	*4.15*	*0.45*	*0.60*	*1.12*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.60*	*0.15*	*0.14*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.30*	*0.60*	*0.54*	*Cum*
	TOTAL					**8.37**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.45*	*0.45*	*0.41*	*Cum*
		2	*1.02*	*0.94*	*1.62*	*3.08*	*Cum*
		2	*1.02*	*1.57*	*0.55*	*1.76*	*Cum*
	Section 2-2	*2*	*2.95*	*0.45*	*0.45*	*1.19*	*Cum*
		2	*2.95*	*0.62*	*0.55*	*2.00*	*Cum*
		2	*2.95*	*0.93*	*0.55*	*3.02*	*Cum*
	Section 3-3	*2*	*2.48*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.48*	*0.56*	*0.35*	*0.96*	*Cum*
		2	*2.48*	*0.81*	*0.50*	*2.01*	*Cum*
	Section 5-5	*2*	*2.04*	*0.45*	*0.45*	*0.83*	*Cum*
		2	*2.04*	*0.94*	*1.62*	*6.18*	*Cum*
		2	*2.04*	*1.57*	*0.55*	*3.53*	*Cum*
	Section 6-6	*2*	*1.30*	*0.45*	*0.45*	*0.53*	*Cum*
		2	*1.30*	*0.56*	*0.35*	*0.50*	*Cum*
		2	*1.30*	*0.81*	*0.50*	*1.05*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*1.63*	*0.80*	*0.50*	*0.65*	*Cum*
		1	*0.05*	*0.80*	*0.53*	*0.02*	*Cum*
		1	*3.87*	*0.80*	*0.55*	*1.70*	*Cum*
		1	*0.28*	*0.80*	*0.25*	*0.06*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*2.75*	*0.80*	*0.50*	*1.10*	*Cum*
		1	*0.70*	*0.80*	*1.00*	*0.56*	*Cum*
	Crest	*1*	*0.91*	*0.80*	*1.31*	*0.95*	*Cum*
	TOTAL					**33.51**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.80*	*0.15*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.53*	*0.45*	*0.05*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.53*	*0.45*	*0.05*	*0.24*	*Cum*
	TOTAL					**0.56**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.51**	**0.30%**	**0.10**	**7850**	**789.07**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.45*	*1.83*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.02*		*1.62*	*6.59*	*Sqm*
		4		*0.94*	*1.62*	*6.05*	*Sqm*
		4	*1.02*		*0.55*	*2.24*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 2-2	*4*	*2.95*		*0.45*	*5.31*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*2.95*		*0.55*	*6.49*	*Sqm*
		4		*0.93*	*0.55*	*2.05*	*Sqm*
	Section 3-3	*4*	*2.48*		*0.45*	*4.46*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.48*		*0.35*	*3.47*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*2.48*		*0.50*	*4.95*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Section 5-5	*4*	*2.04*		*0.45*	*3.68*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.04*		*1.62*	*13.22*	*Sqm*
		4		*0.94*	*1.62*	*6.05*	*Sqm*
		4	*2.04*		*0.55*	*4.50*	*Sqm*
		4		*1.57*	*0.55*	*3.45*	*Sqm*
	Section 6-6	*4*	*1.30*		*0.45*	*2.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.30*		*0.35*	*1.82*	*Sqm*
		4		*0.56*	*0.35*	*0.78*	*Sqm*
		4	*1.30*		*0.50*	*2.59*	*Sqm*
		4		*0.81*	*0.50*	*1.62*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*1.63*		*0.50*	*1.63*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*3.87*		*0.55*	*4.26*	*Sqm*
		2		*0.80*	*0.55*	*0.88*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*0.80*	*0.25*	*0.40*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*2.75*		*0.50*	*2.75*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*0.80*	*1.00*	*1.60*	*Sqm*
	Crest	*2*	*0.9095*		*1.307*	*2.38*	*Sqm*
		2		*0.8*	*1.307*	*2.09*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	*2*	*4.45*		*0.30*	*2.67*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.15*		*0.60*	*4.98*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.15*	*0.90*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.60*	*3.60*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**137.36**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.78*		*5.35*	*Sqm*
	TOTAL					**5.35**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.20*	*0.30*	**0.09**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.20*	*0.15*	**0.09**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.53*	*0.45*		*4.74*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.53*	*0.45*		*4.74*	*Sqm*
	TOTAL					**9.47**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.49		5.49	**Cum**
	Abutment						
	Section 1-1	2	*1.17*	*1.32*		*3.083*	*Cum*
	Section 2-2	2	*2.95*	*0.65*		*3.853*	*Cum*
	Section 3-3	2	*2.75*	*0.47*		*2.591*	*Cum*
	Section 5-5	2	*2.09*	*1.31*		*5.458*	*Cum*
	Section 6-6	2	*0.83*	*0.47*		*0.781*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.45*	*0.15*	*0.60*	*0.801*	*Cum*
		2	*1.50*	*0.15*	*0.60*	*1.800*	*Cum*
	TOTAL					**23.86**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITY OF RAMPUR MR-2						
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 1.500 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		66.09		**66.09**	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.57*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.54*	*1.72*	*0.15*	*1.31*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.49**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.83*	*1.36*	*4.87*	*Cum*
		2	*2.16*	*1.42*	*0.50*	*3.06*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*1.19*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.19*	*0.62*	*0.55*	*0.80*	*Cum*
		2	*1.19*	*0.93*	*0.50*	*1.10*	*Cum*
	Section 5-5	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.83*	*1.36*	*5.63*	*Cum*
		2	*2.50*	*1.42*	*0.50*	*3.54*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.85*	*1.46*	*0.95*	*1.18*	*Cum*
	TOTAL					**37.04**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.46*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**0.61**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	37.04	0.30%	0.11	7850	872.22	Kg
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.16*		*0.45*	*3.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*1.36*	*11.77*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.45*	*2.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.19*		*0.55*	*2.61*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.19*		*0.50*	*2.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*1.36*	*13.59*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.8505*		*0.952*	*1.62*	*Sqm*
		2		*1.46*	*0.952*	*2.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	TOTAL					**9.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		2.32		2.32	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 2.125 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		55.00		**55.00**	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.57*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.54*	*1.72*	*0.15*	*1.31*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.49**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.83*	*1.36*	*4.87*	*Cum*
		2	*2.16*	*1.42*	*0.50*	*3.06*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*1.19*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.19*	*0.62*	*0.55*	*0.80*	*Cum*
		2	*1.19*	*0.93*	*0.50*	*1.10*	*Cum*
	Section 5-5	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.83*	*1.36*	*5.63*	*Cum*
		2	*2.50*	*1.42*	*0.50*	*3.54*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.85*	*1.46*	*0.95*	*1.18*	*Cum*
	TOTAL					**37.04**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.46*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	37.04	0.30%	0.11	7850	872.22	Kg
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.16*		*0.45*	*3.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*1.36*	*11.77*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.45*	*2.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.19*		*0.55*	*2.61*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.19*		*0.50*	*2.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*1.36*	*13.59*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.8505*		*0.952*	*1.62*	*Sqm*
		2		*1.46*	*0.952*	*2.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	TOTAL					**9.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		26.00		26.00	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 2.775 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.14*	*1.688*	*2.508*	*9.669*	*Cum*
	Section 2-2	*2*	*2.75*	*1.140*	*2.508*	*15.725*	*Cum*
	Section 3-3	*2*	*1.70*	*1.020*	*2.308*	*8.004*	*Cum*
	Section 5-5	*2*	*2.31*	*1.838*	*2.508*	*21.260*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*2.308*	*4.496*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.500*	*0.850*	*0.797*	*Cum*
	U/S Floor	*1*	*2.25*	*1.500*	*1.764*	*5.954*	*Cum*
	D/S Floor	*1*	*2.75*	*1.500*	*0.950*	*3.919*	*Cum*
		1	*2.00*	*1.500*	*0.750*	*2.250*	*Cum*
	D/S Key Floor	*1*	*0.65*	*1.500*	*0.650*	*0.634*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.900*	*3.679*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						77.74	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*4.23*	*1.500*	*0.150*	*0.95*	*Cum*
		1	*0.28*	*1.500*	*0.150*	*0.06*	*Cum*
		1	*0.79*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.14*	*1.688*	*0.150*	*0.58*	*Cum*
	Section 2-2	*2*	*2.75*	*1.140*	*0.150*	*0.94*	*Cum*
	Section 3-3	*2*	*1.70*	*1.020*	*0.150*	*0.52*	*Cum*
	Section 5-5	*2*	*2.31*	*1.838*	*0.150*	*1.27*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.300*	*1.23*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.450*	*0.600*	*1.39*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**8.82**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.92*	*0.450*	*0.450*	*0.37*	*Cum*
		2	*0.92*	*0.919*	*1.564*	*2.63*	*Cum*
		2	*0.92*	*1.538*	*0.500*	*1.41*	*Cum*
	Section 2-2	*2*	*2.75*	*0.450*	*0.450*	*1.11*	*Cum*
		2	*2.75*	*0.645*	*0.650*	*2.31*	*Cum*
		2	*2.75*	*0.990*	*0.500*	*2.72*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.585*	*0.450*	*1.01*	*Cum*
		2	*1.92*	*0.870*	*0.500*	*1.67*	*Cum*
	Section 5-5	*2*	*2.26*	*0.450*	*0.450*	*0.92*	*Cum*
		2	*2.26*	*0.919*	*1.564*	*6.50*	*Cum*
		2	*2.26*	*1.538*	*0.500*	*3.48*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.500*	*0.700*	*0.66*	*Cum*
		1	*5.00*	*1.500*	*0.500*	*3.75*	*Cum*
		1	*0.16*	*1.500*	*0.200*	*0.05*	*Cum*
		1	*0.20*	*1.500*	*0.400*	*0.12*	*Cum*
		1	*1.80*	*1.500*	*0.500*	*1.35*	*Cum*
		1	*0.65*	*1.500*	*0.800*	*0.78*	*Cum*
	Crest	*1*	*0.89*	*1.500*	*1.204*	*1.61*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**35.72**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.500*	*0.150*	*0.16*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**35.72**	**0.00**	**0.107**	**7850.0**	**841.30**	**Kg**
	Total Weight in Metric Tonne					**0.84**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.92*		*0.450*	*1.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.92*		*1.564*	*5.73*	*Sqm*
		4		*0.919*	*1.564*	*5.75*	*Sqm*
		4	*0.92*		*0.500*	*1.83*	*Sqm*
		4		*1.538*	*0.500*	*3.08*	*Sqm*
	Section 2-2	*4*	*2.75*		*0.450*	*4.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.75*		*0.650*	*7.15*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*2.75*		*0.500*	*5.50*	*Sqm*
		4		*0.990*	*0.500*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.92*		*0.500*	*3.83*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.26*		*0.450*	*4.07*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.26*		*1.564*	*14.15*	*Sqm*
		4		*0.919*	*1.564*	*5.75*	*Sqm*
		4	*2.26*		*0.500*	*4.52*	*Sqm*
		4		*1.538*	*0.500*	*3.08*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.500*	*0.700*	*2.10*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.16*		*0.200*	*0.06*	*Sqm*
		2		*1.500*	*0.200*	*0.60*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.500*	*0.400*	*1.20*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*1.500*	*0.800*	*2.40*	*Sqm*
	Crest	*2*	*0.89*		*1.204*	*2.15*	*Sqm*
		2		*1.500*	*1.204*	*3.61*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.45*		*0.300*	*3.27*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.600*	*6.18*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**139.03**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.962*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.900*	*0.300*	**0.41**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.900*	*0.150*	**0.41**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.60*	*0.450*		*4.32*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.60*	*0.450*		*4.32*	*Sqm*
	TOTAL					**8.64**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.546		3.55	**Cum**
	Abutment						
	Section 1-1	2	*1.14*	*1.645*		*3.757*	*Cum*
	Section 2-2	2	*2.75*	*0.742*		*4.081*	*Cum*
	Section 3-3	2	*1.70*	*0.556*		*1.890*	*Cum*
	Section 5-5	2	*2.31*	*1.650*		*7.610*	*Cum*
	Section 6-6	2	*0.96*	*0.556*		*1.062*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.45*	*0.150*	*0.600*	*1.635*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**23.85**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 1.925 KM						
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*1.732*	*7.515*	*Cum*
	Section 2-2	*2*	*3.00*	*1.67*	*1.732*	*17.313*	*Cum*
	Section 3-3	*2*	*7.20*	*1.55*	*1.532*	*34.106*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*1.732*	*19.406*	*Cum*
	Section 6-6	*2*	*0.80*	*1.11*	*1.532*	*2.734*	*Cum*
	U/S Key Floor	*1*	*0.625*	*2.500*	*0.850*	*1.328*	*Cum*
	U/S Floor	*1*	*2.500*	*2.500*	*1.682*	*10.513*	*Cum*
		1	*3.000*	*2.500*	*0.700*	*5.250*	*Cum*
	D/S Floor	*1*	*7.300*	*2.500*	*0.650*	*11.863*	*Cum*
	D/S Key Floor	*1*	*7.300*	*2.500*	*0.650*	*11.863*	*Cum*
	Toe Wall D/S Portion	*1*	*6.720*	*0.750*	*0.750*	*3.780*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						127.47	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*2.50*	*0.15*	*0.20*	*Cum*
		1	*0.782*	*2.50*	*0.15*	*0.29*	*Cum*
		1	*0.329*	*2.50*	*0.15*	*0.12*	*Cum*
		1	*0.070*	*2.50*	*0.15*	*0.03*	*Cum*
		1	*4.688*	*2.50*	*0.15*	*1.76*	*Cum*
		1	*0.353*	*2.50*	*0.15*	*0.13*	*Cum*
		1	*5.746*	*2.50*	*0.15*	*2.15*	*Cum*
		1	*1.118*	*2.50*	*0.15*	*0.42*	*Cum*
		1	*0.542*	*2.50*	*0.15*	*0.20*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.81*	*0.15*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.67*	*0.15*	*1.50*	*Cum*
	Section 3-3	*2*	*7.20*	*1.55*	*0.15*	*3.34*	*Cum*
	Section 5-5	*2*	*2.85*	*1.96*	*0.15*	*1.68*	*Cum*
	Section 6-6	*2*	*0.80*	*1.11*	*0.15*	*0.27*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.75*	*0.30*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.45*	*0.45*	*1.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*2.00*	*0.30*	*0.60*	*0.36*	*Cum*
	TOTAL					**16.34**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.45*	*0.45*	*0.42*	*Cum*
		2	*1.05*	*0.98*	*1.77*	*3.64*	*Cum*
		2	*1.05*	*1.66*	*0.55*	*1.91*	*Cum*
	Section 2-2	*2*	*3.00*	*0.82*	*0.50*	*2.46*	*Cum*
		2	*3.00*	*1.02*	*0.66*	*4.03*	*Cum*
		2	*3.00*	*1.37*	*1.30*	*10.65*	*Cum*
	Section 3-3	*2*	*6.87*	*0.82*	*0.50*	*5.63*	*Cum*
		2	*6.87*	*0.96*	*0.46*	*6.05*	*Cum*
		2	*6.87*	*1.25*	*1.50*	*25.68*	*Cum*
	Section 5-5	*2*	*2.81*	*0.45*	*0.45*	*1.14*	*Cum*
		2	*2.81*	*0.98*	*1.77*	*9.79*	*Cum*
		2	*2.81*	*1.66*	*0.50*	*4.67*	*Cum*
	Section 6-6	*2*	*1.43*	*0.45*	*0.45*	*0.58*	*Cum*
		2	*1.43*	*0.63*	*0.60*	*1.08*	*Cum*
		2	*1.43*	*0.96*	*0.50*	*1.37*	*Cum*
	Deduct Dirt wall	*2*	*3.30*	*0.82*	*0.50*	*-2.71*	*Cum*
	Floor	*1*	*0.63*	*2.50*	*0.70*	*1.09*	*Cum*
		1	*1.28*	*2.50*	*0.50*	*1.61*	*Cum*
		1	*0.05*	*2.50*	*0.53*	*0.07*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*4.17*	*2.50*	*0.55*	*5.73*	*Cum*
		1	*0.20*	*2.50*	*0.40*	*0.20*	*Cum*
		1	*0.52*	*2.50*	*0.25*	*0.33*	*Cum*
		1	*7.30*	*2.50*	*0.50*	*9.13*	*Cum*
		1	*0.70*	*2.50*	*1.00*	*1.75*	*Cum*
	Crest	*1*	*0.96*	*2.50*	*1.30*	*3.10*	*Cum*
	TOTAL					**99.40**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*2.50*	*0.15*	*0.28*	*Cum*
	Coping over Abutment Top	*2*	*7.82*	*0.45*	*0.05*	*0.35*	*Cum*
	Slab Bridge						
	Slab	*1*	*3.30*	*8.5*	*0.34*	*9.40*	*Cum*
	Wearing coat	*1*	*3.30*	*8.50*	*0.07*	*1.96*	*Cum*
	Dirt wall	*2*	*0.40*	*8.5*	*0.45*	*3.03*	*Cum*
	300 mm thick pedastial	*2*	*0.82*	*8.5*	*0.30*	*4.18*	*Cum*
	TOTAL					**19.20**	**Cum**
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*47*	*3.76*		*1.578*	*278.9*	*Kg*
a2	*10*	*17*	*8.90*		*0.616*	*93.3*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*3.68*		*0.616*	*65.8*	*Kg*
a5	*10*	*12*	*8.80*		*0.616*	*65.1*	*Kg*
x1	*12*	*54*	*2.50*		*0.888*	*119.9*	*Kg*
x2	*16*	*54*	*1.27*		*1.578*	*107.8*	*Kg*
x3	*10*	*24*	*3.20*		*0.616*	*47.3*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**99.40**	**0.30%**	**0.30**	**7850**	**2340.98**	**Kg**
	TOTAL REINFORCEMENT STEEL (in kg)					**3129.41**	**Kg'**
	TOTAL REINFORCEMENT STEEL (in MT)					**3.13**	**MT**

6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.45*	*1.88*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.05*		*1.77*	*7.42*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*1.05*		*0.55*	*2.30*	*Sqm*
		4		*1.66*	*0.55*	*3.66*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.50*	*6.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*3.00*		*0.66*	*7.92*	*Sqm*
		4		*1.02*	*0.66*	*2.69*	*Sqm*
		4	*3.00*		*1.30*	*15.60*	*Sqm*
		4		*1.37*	*1.30*	*7.10*	*Sqm*
	Section 3-3	*4*	*6.87*		*0.50*	*13.74*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*6.87*		*0.46*	*12.64*	*Sqm*
		4		*0.96*	*0.46*	*1.76*	*Sqm*
		4	*6.87*		*1.50*	*41.22*	*Sqm*
		4		*1.25*	*1.50*	*7.48*	*Sqm*
	Section 5-5	*4*	*2.81*		*0.45*	*5.06*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.81*		*1.77*	*19.93*	*Sqm*
		4		*0.98*	*1.77*	*6.97*	*Sqm*
		4	*2.81*		*0.50*	*5.62*	*Sqm*
		4		*1.66*	*0.50*	*3.33*	*Sqm*
	Section 6-6	*4*	*1.43*		*0.45*	*2.57*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.43*		*0.60*	*3.42*	*Sqm*
		4		*0.63*	*0.60*	*1.51*	*Sqm*
		4	*1.43*		*0.50*	*2.85*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4		*0.96*	*0.50*	*1.92*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*2.50*	*0.70*	*3.50*	*Sqm*
		2	*1.28*		*0.50*	*1.28*	*Sqm*
		2		*2.50*	*0.50*	*2.50*	*Sqm*
		2	*0.05*		*0.53*	*0.05*	*Sqm*
		2		*2.50*	*0.53*	*2.63*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.50*	*0.55*	*2.75*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*2.50*	*0.40*	*2.00*	*Sqm*
		2	*0.52*		*0.25*	*0.26*	*Sqm*
		2		*2.50*	*0.25*	*1.25*	*Sqm*
		2	*4.17*		*0.55*	*4.58*	*Sqm*
		2		*2.50*	*0.55*	*2.75*	*Sqm*
		2	*0.70*		*1.00*	*1.40*	*Sqm*
		2		*2.50*	*1.00*	*5.00*	*Sqm*
	Crest	*2*	*0.9575*		*1.295*	*2.48*	*Sqm*
		2		*2.5*	*1.295*	*6.48*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.30*	*4.03*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.45*	*6.05*	*Sqm*
		2		*0.45*	*0.45*	*0.41*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**259.81**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.23*		*8.93*	*Sqm*
	TOTAL					**8.93**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.90*	*0.30*	**1.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.90*	*0.15*	**1.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.82*	*0.45*		*3.52*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.82*	*0.45*		*3.52*	*Sqm*
	TOTAL					**7.04**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.69		5.69	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*0.69*		*1.645*	*Cum*
	Section 2-2	2	*3.00*	*0.23*		*1.380*	*Cum*
	Section 3-3	2	*7.20*	*0.21*		*3.037*	*Cum*
	Section 5-5	2	*2.85*	*0.69*		*3.923*	*Cum*
	Section 6-6	2	*0.80*	*0.66*		*1.068*	*Cum*
	D/S protection						
	Toe wall	2	*6.72*	*0.08*		*1.031*	*Cum*
	TOTAL					**17.78**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	WELL TYPE FALL AT CH.1.250 KM						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*150.00*			**150.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.17*	*0.75*	*1.20*	*1.05*	*Cum*
	D/S Toe Wall	*1*	*1.17*	*0.75*	*1.20*	*1.05*	*Cum*
	PCC Below Well Portion (U/S)	*1*	*2.50*	*2.50*	*3.37*	*21.09*	*Cum*
	PCC Below Well Portion (D/S)	*1*	*2.20*	*2.20*	*2.84*	*13.75*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*1.27*	*2.83*	*4.36*	*31.35*	*Cum*
	Extra for Slope (.5:1)	*2*	*1.27*	*2.18*	*4.36*	*24.19*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*1.27*	*1.91*	*2.84*	*13.81*	*Cum*
	Extra for Slope (.5:1)	*2*	*1.27*	*1.42*	*2.84*	*10.24*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*2.00*	*1.17*	*0.45*	*1.05*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*3.05*	*1.17*	*0.45*	*1.61*	*Cum*
	Below Canal Bed	*1*	*52.84*		*1.83*	*96.69*	*Cum*
	TOTAL					**215.88**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.17*	*0.75*	*0.30*	*0.26*	*Cum*
	U/S Toe Wall Stem	*1*	*1.17*	*0.45*	*0.90*	*0.47*	*Cum*
	D/S Toe Wall	*1*	*1.17*	*0.75*	*0.30*	*0.26*	*Cum*
	D/S Toe Wall Stem	*1*	*1.17*	*0.45*	*0.90*	*0.47*	*Cum*
	PCC Below Well Portion (U/S)	*1*	*2.50*	*2.50*	*0.15*	*0.94*	*Cum*
	PCC Below Well Portion (D/S)	*1*	*2.20*	*2.20*	*0.15*	*0.73*	*Cum*
	Floor Apron (U/S Portion)	*1*	*2.00*	*1.17*	*0.45*	*1.05*	*Cum*
	Floor Apron (D/S Portion)	*1*	*3.05*	*1.17*	*0.45*	*1.61*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*1.27*	*2.83*	*0.15*	*1.08*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*1.27*	*1.91*	*0.15*	*0.73*	*Cum*
	PCC Below Hume Pipe	*1*	*19.25*	*1.83*	*0.30*	*10.57*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*19.25*	*0.63*	*0.37*	*8.90*	*Cum*
	TOTAL					**27.07**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S well base	*1*	*2.20*	*2.20*	*0.20*	*0.97*	*Cum*
	U/S well Wall	*1*	*2.20*	*2.20*	*1.97*	*9.51*	*Cum*
		1	*2.20*	*2.20*	*1.06*	*5.13*	*Cum*
		1	*2.20*	*2.20*	*0.99*	*4.79*	*Cum*
	Deduct Well	*1*	*1.00*	*1.00*	*4.01*	*-4.01*	*Cum*
	Deduct Pipe in well portion	*1*	*0.79*		*0.45*	*-0.35*	*Cum*
	Deduct one side well wall	*1*	*2.20*	*0.30*	*0.99*	*-0.65*	*Cum*
	D/S well base	*1*	*1.90*	*1.90*	*0.20*	*0.72*	*Cum*
	D/S well Wall	*1*	*1.90*	*1.90*	*2.49*	*8.99*	*Cum*
	Deduct Well	*1*	*1.00*	*1.00*	*2.49*	*-2.49*	*Cum*
	Deduct Pipe in well portion Wall	*1*	*0.79*		*0.30*	*-0.24*	*Cum*
	Deduct one side well wall	*1*	*1.90*	*0.30*	*0.88*	*-0.50*	*Cum*
	U/S Transition Walls (Left & Right)						
	Section X-X	*2*	*1.27*	*0.30*	*0.50*	*0.38*	*Cum*
		2	*1.27*	*1.42*	*3.71*	*13.39*	*Cum*
	D/S Transition Walls (Left & Right)						
	Section Y-Y	*2*	*1.27*	*0.30*	*0.50*	*0.38*	*Cum*
		2	*1.27*	*0.96*	*2.19*	*5.32*	*Cum*
	Collar Joint	*7*	*1.83*	*0.30*	*1.60*	*6.15*	*Cum*
	Deduct Hume Pipe Area	*1*	*0.79*		*0.30*	*-0.24*	*Cum*
	TOTAL					**47.25**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Toe Wall	*2*	*1.17*		*0.30*	*0.70*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	U/S Toe Wall Stem	*2*	*1.17*		*0.90*	*2.11*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Toe Wall	*2*	*1.17*		*0.30*	*0.70*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	D/S Toe Wall Stem	*2*	*1.17*		*0.90*	*2.11*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*2*		*0.45*	*1.80*	*Sqm*
		2		*1.17*	*0.45*	*1.05*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*3.05*		*0.45*	*2.75*	*Sqm*
		2		*1.17*	*0.45*	*1.05*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.3*	*0.50*	*0.60*	*Sqm*
		4	*1.27*		*3.71*	*18.87*	*Sqm*
		4		*1.419*	*3.71*	*21.08*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*1.27*		*0.50*	*2.54*	*Sqm*
		4		*0.3*	*0.50*	*0.60*	*Sqm*
		4	*1.27*		*2.19*	*11.13*	*Sqm*
		4		*0.96*	*2.19*	*8.38*	*Sqm*
	PCC Below Hume Pipe	*2*	*19.25*		*0.30*	*11.55*	*Sqm*
		2		*1.83*	*0.30*	*1.10*	*Sqm*
	Deduct Hume Pipe Area	*4*	*19.25*		*0.37*	*28.11*	*Sqm*
		4		*0.63*	*0.37*	*0.92*	*Sqm*
	U/S well Wall	*8*	*2.2*		*4.01*	*70.65*	*Sqm*
		8		*2.20*	*4.01*	*70.65*	*Sqm*
	D/S well Wall	*8*	*1.9*		*2.49*	*37.85*	*Sqm*
		8		*1.90*	*2.49*	*37.85*	*Sqm*
	TOTAL					**339.19**	**Sqm**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*25.62*	*0.25%*	*0.06*	*7850*	*502.80*	*Kg*
	1.5 % Skin Reinforcement for Well Wall	*21.86*	*1.50%*	*0.33*	*7851*	*2574.55*	*Kg*
	TOTAL Weight of steel (in kg)					3077.35	Kg
	TOTAL Weight of Steel (in Tonne)					**3.08**	**MT**
7	Providing 1000 mm RCC NP4 pipe	8		2.50		20	Rm
	TOTAL					**20.00**	**Rm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*1.27*	*4.08*		*10.37*	*Cum*
	D/S Transitions Walls	*2*	*1.27*	*2.90*		*7.37*	*Cum*
	Above Hume Pipe	*1*	*32.87*		*1.83*	*60.15*	*Cum*
	TOTAL					**77.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF FALLS FOR SADOPUR MINOR						
	WELL TYPE FALL AT CH.0.150 KM						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.00*	*0.75*	*1.20*	*0.90*	*Cum*
	D/S Toe Wall	*1*	*1.00*	*0.75*	*1.20*	*0.90*	*Cum*
	PCC Below Well Portion (U/S)	*1*	*2.50*	*2.50*	*3.69*	*23.08*	*Cum*
	PCC Below Well Portion (D/S)	*1*	*2.20*	*2.20*	*3.69*	*17.87*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*1.14*	*2.81*	*4.33*	*27.77*	*Cum*
	Extra for Slope (.5:1)	*2*	*1.14*	*2.17*	*4.33*	*21.42*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*1.14*	*1.90*	*2.81*	*12.15*	*Cum*
	Extra for Slope (.5:1)	*2*	*1.14*	*1.41*	*2.81*	*9.00*	*Cum*
	C.C Floor Apron in (U/S Portion)	*1*	*2.00*	*1.00*	*0.45*	*0.90*	*Cum*
	C.C Floor Apron in (D/S Portion)	*1*	*3.05*	*1.00*	*0.45*	*1.37*	*Cum*
	Below Canal Bed	*1*	*80.06*		*1.83*	*146.51*	*Cum*
	TOTAL					**261.86**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	U/S Toe Wall	*1*	*1.00*	*0.75*	*0.30*	*0.23*	*Cum*
	U/S Toe Wall Stem	*1*	*1.00*	*0.45*	*0.90*	*0.41*	*Cum*
	D/S Toe Wall	*1*	*1.00*	*0.75*	*0.30*	*0.23*	*Cum*
	D/S Toe Wall Stem	*1*	*1.00*	*0.45*	*0.90*	*0.41*	*Cum*
	PCC Below Well Portion (U/S)	*1*	*2.50*	*2.50*	*0.15*	*0.94*	*Cum*
	PCC Below Well Portion (D/S)	*1*	*2.20*	*2.20*	*0.15*	*0.73*	*Cum*
	Floor Apron (U/S Portion)	*1*	*2.00*	*1.00*	*0.45*	*0.90*	*Cum*
	Floor Apron (D/S Portion)	*1*	*3.05*	*1.00*	*0.45*	*1.37*	*Cum*
	U/S Transitions Floor (Left & Right)	*2*	*1.14*	*2.81*	*0.15*	*0.96*	*Cum*
	D/S Transitions Floor (Left & Right)	*2*	*1.14*	*1.90*	*0.15*	*0.65*	*Cum*
	PCC Below Hume Pipe	*1*	*29.25*	*1.83*	*0.30*	*16.06*	*Cum*
	PCC Below Hume Pipe in (Curve Portion)	*2*	*29.25*	*0.63*	*0.37*	*13.53*	*Cum*
	TOTAL					**36.39**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S well base	*1*	*2.20*	*2.20*	*0.20*	*0.97*	*Cum*
	U/S well Wall	*1*	*2.20*	*2.20*	*1.97*	*9.51*	*Cum*
		1	*2.20*	*2.20*	*1.06*	*5.13*	*Cum*
		1	*2.20*	*2.20*	*0.96*	*4.65*	*Cum*
	Deduct Well	*1*	*1.00*	*1.00*	*3.98*	*-3.98*	*Cum*
	Deduct Pipe in well portion	*1*	*0.79*		*0.45*	*-0.35*	*Cum*
	Deduct one side well wall	*1*	*2.20*	*0.30*	*0.96*	*-0.63*	*Cum*
	D/S well base	*1*	*1.90*	*1.90*	*0.20*	*0.72*	*Cum*
	D/S well Wall	*1*	*1.90*	*1.90*	*2.46*	*8.88*	*Cum*
	Deduct Well	*1*	*1.00*	*1.00*	*2.46*	*-2.46*	*Cum*
	Deduct Pipe in well portion Wall	*1*	*0.79*		*0.30*	*-0.24*	*Cum*
	Deduct one side well wall	*1*	*1.90*	*0.30*	*0.85*	*-0.48*	*Cum*
	U/S Transition Walls (Left & Right)						
	Section X-X	*2*	*1.14*	*0.30*	*0.50*	*0.34*	*Cum*
		2	*1.14*	*1.41*	*3.68*	*11.80*	*Cum*
	D/S Transition Walls (Left & Right)						
	Section Y-Y	*2*	*1.14*	*0.30*	*0.50*	*0.34*	*Cum*
		2	*1.14*	*0.95*	*2.16*	*4.67*	*Cum*
	Collar Joint	*11*	*1.83*	*0.30*	*1.05*	*6.34*	*Cum*
	Deduct Hume Pipe Area	*1*	*0.79*		*0.30*	*-0.24*	*Cum*
	TOTAL					**44.97**	**Cum**
5	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	U/S Toe Wall	*2*	*1*		*0.30*	*0.60*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	U/S Toe Wall Stem	*2*	*1*		*0.90*	*1.80*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	D/S Toe Wall	*2*	*1*		*0.30*	*0.60*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	D/S Toe Wall Stem	*2*	*1*		*0.90*	*1.80*	*Sqm*
		2		*0.45*	*0.90*	*0.81*	*Sqm*
	Floor Apron (U/S Portion)	*2*	*2*		*0.45*	*1.80*	*Sqm*
		2		*1*	*0.45*	*0.90*	*Sqm*
	Floor Apron (D/S Portion)	*2*	*3.05*		*0.45*	*2.75*	*Sqm*
		2		*1*	*0.45*	*0.90*	*Sqm*
	U/S Transitions Floor (Left & Right)	*4*	*1.14*		*0.50*	*2.28*	*Sqm*
		4		*0.3*	*0.50*	*0.60*	*Sqm*
		4	*1.14*		*3.68*	*16.80*	*Sqm*
		4		*1.405*	*3.68*	*20.71*	*Sqm*
	D/S Transitions Floor (Left & Right)	*4*	*1.14*		*0.50*	*2.28*	*Sqm*
		4		*0.3*	*0.50*	*0.60*	*Sqm*
		4	*1.14*		*2.16*	*9.85*	*Sqm*
		4		*0.95*	*2.16*	*8.19*	*Sqm*
	PCC Below Hume Pipe	*2*	*29.25*		*0.30*	*17.55*	*Sqm*
		2		*1.83*	*0.30*	*1.10*	*Sqm*
	Deduct Hume Pipe Area	*4*	*29.25*		*0.37*	*42.71*	*Sqm*
		4		*0.63*	*0.37*	*0.92*	*Sqm*
	U/S well Wall	*8*	*2.2*		*3.98*	*70.12*	*Sqm*
		8		*2.20*	*3.98*	*70.12*	*Sqm*
	D/S well Wall	*8*	*1.9*		*2.46*	*37.39*	*Sqm*
		8		*1.90*	*2.46*	*37.39*	*Sqm*
	TOTAL					**352.27**	**Sqm**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
		Quantity	Percent		Density		
	0.25 % Skin Reinforcement for Transition walls	*23.50*	*0.25%*	*0.06*	*7850*	*461.11*	*Kg*
	1.5 % Skin Reinforcement for Well Wall	*21.71*	*1.50%*	*0.33*	*7851*	*2556.11*	*Kg*
	TOTAL Weight of steel (in kg)					3017.22	Kg
	TOTAL Weight of Steel (in Tonne)					**3.02**	**MT**
7	Providing 1000 mm RCC NP4 pipe	12		2.50		30	Rm
	TOTAL					**30.00**	**Rm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*2*	*1.14*	*4.82*		*11.00*	*Cum*
	D/S Transitions Walls	*2*	*1.14*	*2.84*		*6.48*	*Cum*
	Above Hume Pipe	*1*	*41.25*		*1.83*	*75.49*	*Cum*
	TOTAL					**92.96**	**Cum**

Cross Drainage Works
(Total Cost – Rs ₹ 2,92,53,510.17)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF PATHRA MR AT KM 1.750									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	189.48	Cum	**195.20**	36986.89			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	37.79	Cum	**6381.70**	241137.26	12.24	17.00	34.01
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	42.99	Cum	**6914.20**	297255.17	17.73	18.49	36.97
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	238.48	Sqm	**578.60**	137984.69			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	15.00	RM	**6002.82**	90042.30			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**1713.33**	25699.96			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.84	MT	**73574.90**	62076.44			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	46.75	Cum	**149.30**	6979.67			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	35.49	Cum	**1075.00**	38151.90			
		Coarse Aggregates (100 Km lead)	70.98	Cum	**1398.00**	99230.42			
		Cement (30 km lead)	29.98	MT	**742.00**	22242.77			
		Steel (30 Km lead)	0.84	MT	**742.00**	626.04			
		Hume Pipe (30 Km)	15.00	RM	**1838.00**	27570.00			
TOTAL (In Rs.)						**₹ 10,85,983.49**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	35.49	Cum	**584.64**	20748.95	2074.90		
		Coarse Aggregate	70.98	Cum	**944.26**	67023.83	6702.38		
		Total					**8777.28**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF PATHRA MR AT KM 2.073									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	226.23	Cum	**195.20**	44160.91			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	37.25	Cum	**6381.70**	237747.56	12.07	16.76	33.53
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.25	Cum	**6914.20**	326670.05	19.49	20.32	40.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	262.75	Sqm	**578.60**	152026.65			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.93	MT	**73574.90**	68219.22			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	52.00	Cum	**149.30**	7763.25			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	37.08	Cum	**1075.00**	39861.48			
		Coarse Aggregates (100 Km lead)	74.16	Cum	**1398.00**	103676.94			
		Cement (30 km lead)	31.56	MT	**742.00**	23417.20			
		Steel (30 Km lead)	0.93	MT	**742.00**	687.99			
		Hume Pipe (30 Km)	12.50	RM	**1838.00**	22975.00			
TOTAL (In Rs.)						**₹ 11,23,658.15**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	37.08	Cum	**584.64**	21678.71	2167.87		
		Coarse Aggregate	74.16	Cum	**944.26**	70027.17	7002.72		
		Total					**9170.59**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DABUR MR AT KM 2.774									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	199.27	Cum	**195.20**	38896.80			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	33.85	Cum	**6381.70**	216023.00	10.97	15.23	30.47
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.23	Cum	**6914.20**	222814.29	13.29	13.86	27.71
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	189.68	Sqm	**578.60**	109750.01			
5	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	10.00	RM	**2532.61**	25326.10			
6	**WRD 5.6.2.2**	Labour for laying fitting and fixing 600 mm dia NP3 pipe with collars in line level and grade as well as providing approved jointing materials and joint properly fillied to make proof all complete as per specification and direction of E/I.	10.00	RM	**711.27**	7112.65			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.63	MT	**73574.90**	46530.79			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.18	Cum	**149.30**	5999.02			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	29.09	Cum	**1075.00**	31271.41			
		Coarse Aggregates (100 Km lead)	58.18	Cum	**1398.00**	81334.76			
		Cement (30 km lead)	24.26	MT	**742.00**	18001.36			
		Steel (30 Km lead)	0.63	MT	**742.00**	469.26			
		Hume Pipe (30 Km)	10.00	RM	**1838.00**	18380.00			
TOTAL (In Rs.)						**₹ 8,21,909.46**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	29.09	Cum	**584.64**	17006.99	1700.70		
		Coarse Aggregate	58.18	Cum	**944.26**	54936.45	5493.65		
		Total					**7194.34**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF SADOPUR MR AT KM 0.381									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	245.65	Cum	**195.20**	47951.19			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	40.21	Cum	**6381.70**	256593.18	13.03	18.09	36.19
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.25	Cum	**6914.20**	326670.05	19.49	20.32	40.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	270.63	Sqm	**578.60**	156583.94			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	15.00	RM	**6002.82**	90042.30			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**1713.33**	25699.96			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.93	MT	**73574.90**	68219.22			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	59.13	Cum	**149.30**	8828.81			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	38.41	Cum	**1075.00**	41290.03			
		Coarse Aggregates (100 Km lead)	76.82	Cum	**1398.00**	107392.50			
		Cement (30 km lead)	32.52	MT	**742.00**	24127.14			
		Steel (30 Km lead)	0.93	MT	**742.00**	687.99			
		Hume Pipe (30 Km)	15.00	RM	**1838.00**	27570.00			
TOTAL (In Rs.)						**₹ 11,81,656.31**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	38.41	Cum	**584.64**	22455.63	2245.56		
		Coarse Aggregate	76.82	Cum	**944.26**	72536.79	7253.68		
		Total					**9499.24**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF SADOPUR MR AT KM 1.600									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	295.20	Cum	**195.20**	57622.39			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	53.38	Cum	**6381.70**	340639.66	17.29	24.02	48.04
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	71.60	Cum	**6914.20**	495089.75	29.54	30.79	61.58
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	341.05	Sqm	**578.60**	197329.38			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	25.00	RM	**6002.82**	150070.50			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	25.00	RM	**1713.33**	42833.27			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.41	MT	**73574.90**	103390.67			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	89.24	Cum	**149.30**	13323.35			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	54.81	Cum	**1075.00**	58920.71			
		Coarse Aggregates (100 Km lead)	109.62	Cum	**1398.00**	153248.65			
		Cement (30 km lead)	46.83	MT	**742.00**	34748.83			
		Steel (30 Km lead)	1.41	MT	**742.00**	1042.69			
		Hume Pipe (30 Km)	25.00	RM	**1838.00**	45950.00			
TOTAL (In Rs.)						**₹ 16,94,209.85**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	54.81	Cum	**584.64**	32044.10	3204.41		
		Coarse Aggregate	109.62	Cum	**944.26**	103509.71	10350.97		
		Total					**13555.38**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 1.900									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	383.07	Cum	**195.20**	74774.35			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	51.58	Cum	**6381.70**	329149.25	16.71	23.21	46.42
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	99.67	Cum	**6914.20**	689154.65	41.11	42.86	85.72
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	499.61	Sqm	**578.60**	289074.00			
5	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	15.00	RM	**7015.86**	105237.90			
6	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**2047.70**	30715.56			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.96	MT	**73574.90**	143917.66			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	65.47	Cum	**149.30**	9774.29			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	66.07	Cum	**1075.00**	71023.95			
		Coarse Aggregates (100 Km lead)	132.14	Cum	**1398.00**	184728.33			
		Cement (30 km lead)	57.83	MT	**742.00**	42906.75			
		Steel (30 Km lead)	1.96	MT	**742.00**	1451.40			
		Hume Pipe (30 Km)	15.00	RM	**1838.00**	27570.00			
TOTAL (In Rs.)						**₹ 19,99,478.09**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	66.07	Cum	**584.64**	38626.46	3862.65		
		Coarse Aggregate	132.14	Cum	**944.26**	124772.23	12477.22		
		Total					**16339.87**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 3.400									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	290.51	Cum	**195.20**	56707.55			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	72.96	Cum	**6381.70**	465590.26	23.64	32.83	65.66
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	95.88	Cum	**6914.20**	662932.66	39.55	41.23	82.46
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	598.50	Sqm	**578.60**	346292.02			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	35.00	RM	**6002.82**	210098.70			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	35.00	RM	**1713.33**	59966.57			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.88	MT	**73574.90**	138441.67			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	105.65	Cum	**149.30**	15773.50			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	74.06	Cum	**1075.00**	79613.47			
		Coarse Aggregates (100 Km lead)	148.12	Cum	**1398.00**	207069.07			
		Cement (30 km lead)	63.19	MT	**742.00**	46885.90			
		Steel (30 Km lead)	1.88	MT	**742.00**	1396.18			
		Hume Pipe (30 Km)	35.00	RM	**1838.00**	64330.00			
TOTAL (In Rs.)						**₹ 23,55,097.53**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	74.06	Cum	**584.64**	43297.88	4329.79		
		Coarse Aggregate	148.12	Cum	**944.26**	139861.97	13986.20		
		Total					**18315.99**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 4.250									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	286.46	Cum	**195.20**	55916.49			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	47.47	Cum	**6381.70**	302941.93	15.38	21.36	42.72
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	81.70	Cum	**6914.20**	564869.07	33.70	35.13	70.26
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	450.15	Sqm	**578.60**	260456.35			
5	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	17.50	RM	**7015.86**	122777.55			
6	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	17.50	RM	**2047.70**	35834.82			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.60	MT	**73574.90**	117962.84			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	73.67	Cum	**149.30**	10998.67			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	56.49	Cum	**1075.00**	60728.23			
		Coarse Aggregates (100 Km lead)	112.98	Cum	**1398.00**	157949.89			
		Cement (30 km lead)	49.08	MT	**742.00**	36417.66			
		Steel (30 Km lead)	1.60	MT	**742.00**	1189.65			
		Hume Pipe (30 Km)	17.50	RM	**1838.00**	32165.00			
TOTAL (In Rs.)						**₹ 17,60,208.16**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	56.49	Cum	**584.64**	33027.12	3302.71		
		Coarse Aggregate	112.98	Cum	**944.26**	106685.09	10668.51		
		Total					**13971.22**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 5.150									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	213.28	Cum	**195.20**	41631.97			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	42.17	Cum	**6381.70**	269098.11	13.66	18.98	37.95
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	79.42	Cum	**6914.20**	549113.31	32.76	34.15	68.30
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	431.04	Sqm	**578.60**	249400.80			
5	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	15.00	RM	**7015.86**	105237.90			
6	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**2047.70**	30715.56			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.56	MT	**73574.90**	114672.53			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	70.55	Cum	**149.30**	10532.68			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	53.13	Cum	**1075.00**	57109.42			
		Coarse Aggregates (100 Km lead)	106.25	Cum	**1398.00**	148537.62			
		Cement (30 km lead)	46.42	MT	**742.00**	34445.25			
		Steel (30 Km lead)	1.56	MT	**742.00**	1156.47			
		Hume Pipe (30 Km)	15.00	RM	**1838.00**	27570.00			
TOTAL (In Rs.)						**₹ 16,39,221.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	53.13	Cum	**584.64**	31059.03	3105.90		
		Coarse Aggregate	106.25	Cum	**944.26**	100327.71	10032.77		
		Total					**13138.67**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 6.340									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	289.98	Cum	**195.20**	56604.67			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	62.81	Cum	**6381.70**	400847.80	20.35	28.27	56.53
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	59.72	Cum	**6914.20**	412897.56	24.63	25.68	51.36
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	424.72	Sqm	**578.60**	245741.90			
5	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	30.00	RM	**7015.86**	210475.80			
6	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**2047.70**	61431.13			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.17	MT	**73574.90**	86226.29			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.76	Cum	**149.30**	3547.83			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	53.94	Cum	**1075.00**	57989.68			
		Coarse Aggregates (100 Km lead)	107.89	Cum	**1398.00**	150827.10			
		Cement (30 km lead)	44.98	MT	**742.00**	33378.51			
		Steel (30 Km lead)	1.17	MT	**742.00**	869.59			
		Hume Pipe (30 Km)	30.00	RM	**1838.00**	55140.00			
TOTAL (In Rs.)						**₹ 17,75,977.86**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	53.94	Cum	**584.64**	31537.75	3153.78		
		Coarse Aggregate	107.89	Cum	**944.26**	101874.10	10187.41		
		Total					**13341.19**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 6.740									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	329.00	Cum	**195.20**	64220.77			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	62.99	Cum	**6381.70**	402006.77	20.41	28.35	56.69
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	59.94	Cum	**6914.20**	414414.92	24.72	25.77	51.55
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	425.50	Sqm	**578.60**	246194.60			
5	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	30.00	RM	**7015.86**	210475.80			
6	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**2047.70**	61431.13			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.18	MT	**73574.90**	86543.17			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.76	Cum	**149.30**	3547.83			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	54.12	Cum	**1075.00**	58178.97			
		Coarse Aggregates (100 Km lead)	108.24	Cum	**1398.00**	151319.45			
		Cement (30 km lead)	45.13	MT	**742.00**	33489.34			
		Steel (30 Km lead)	1.18	MT	**742.00**	872.78			
		Hume Pipe (30 Km)	30.00	RM	**1838.00**	55140.00			
TOTAL (In Rs.)						**₹ 17,87,835.52**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	54.12	Cum	**584.64**	31640.70	3164.07		
		Coarse Aggregate	108.24	Cum	**944.26**	102206.65	10220.67		
		Total					**13384.74**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY. AT KM 7.750									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	193.21	Cum	**195.20**	37714.18			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	40.21	Cum	**6381.70**	256593.18	13.03	18.09	36.19
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	73.81	Cum	**6914.20**	510309.28	30.44	31.74	63.47
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	380.80	Sqm	**578.60**	220332.50			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	15.00	RM	**6002.82**	90042.30			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**1713.33**	25699.96			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.45	MT	**73574.90**	106569.00			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	85.79	Cum	**149.30**	12809.13			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	49.83	Cum	**1075.00**	53567.27			
		Coarse Aggregates (100 Km lead)	99.66	Cum	**1398.00**	139324.72			
		Cement (30 km lead)	43.47	MT	**742.00**	32256.41			
		Steel (30 Km lead)	1.45	MT	**742.00**	1074.74			
		Hume Pipe (30 Km)	15.00	RM	**1838.00**	27570.00			
TOTAL (In Rs.)						**₹ 15,13,862.67**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	49.83	Cum	**584.64**	29132.62	2913.26		
		Coarse Aggregate	99.66	Cum	**944.26**	94104.98	9410.50		
		Total					**12323.76**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF ANTI MR AT KM 5.861									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	296.50	Cum	**195.20**	57877.71			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	53.38	Cum	**6381.70**	340639.66	17.29	24.02	48.04
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	71.60	Cum	**6914.20**	495089.75	29.54	30.79	61.58
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	341.05	Sqm	**578.60**	197329.38			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	25.00	RM	**6002.82**	150070.50			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	25.00	RM	**1713.33**	42833.27			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.41	MT	**73574.90**	103390.67			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	82.68	Cum	**149.30**	12344.40			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	54.81	Cum	**1075.00**	58920.71			
		Coarse Aggregates (100 Km lead)	109.62	Cum	**1398.00**	153248.65			
		Cement (30 km lead)	46.83	MT	**742.00**	34748.83			
		Steel (30 Km lead)	1.41	MT	**742.00**	1042.69			
		Hume Pipe (30 Km)	25.00	RM	**1838.00**	45950.00			
TOTAL (In Rs.)						**₹ 16,93,486.22**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	54.81	Cum	**584.64**	32044.10	3204.41		
		Coarse Aggregate	109.62	Cum	**944.26**	103509.71	10350.97		
		Total					**13555.38**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF MARUKA MR AT KM 0.091									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	172.61	Cum	**195.20**	33694.39			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	35.09	Cum	**6381.70**	223905.11	11.37	15.79	31.58
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.58	Cum	**6914.20**	287500.60	17.15	17.88	35.76
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	245.38	Sqm	**578.60**	141975.36			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.82	MT	**73574.90**	60039.37			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	44.39	Cum	**149.30**	6626.77			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	33.67	Cum	**1075.00**	36193.51			
		Coarse Aggregates (100 Km lead)	67.34	Cum	**1398.00**	94136.79			
		Cement (30 km lead)	28.52	MT	**742.00**	21161.79			
		Steel (30 Km lead)	0.82	MT	**742.00**	605.49			
		Hume Pipe (30 Km)	12.50	RM	**1838.00**	22975.00			
TOTAL (In Rs.)						**₹ 10,25,266.08**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	33.67	Cum	**584.64**	19683.88	1968.39		
		Coarse Aggregate	67.34	Cum	**944.26**	63583.41	6358.34		
		Total					**8326.73**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF MARUKA MR AT KM 1.250									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	168.22	Cum	**195.20**	32836.88			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	35.09	Cum	**6381.70**	223905.11	11.37	15.79	31.58
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.58	Cum	**6914.20**	287500.60	17.15	17.88	35.76
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	245.38	Sqm	**578.60**	141975.36			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.82	MT	**73574.90**	60039.37			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	41.73	Cum	**149.30**	6230.83			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	33.67	Cum	**1075.00**	36193.51			
		Coarse Aggregates (100 Km lead)	67.34	Cum	**1398.00**	94136.79			
		Cement (30 km lead)	28.52	MT	**742.00**	21161.79			
		Steel (30 Km lead)	0.82	MT	**742.00**	605.49			
		Hume Pipe (30 Km)	12.50	RM	**1838.00**	22975.00			
TOTAL (In Rs.)						**₹ 10,24,012.63**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	33.67	Cum	**584.64**	19683.88	1968.39		
		Coarse Aggregate	67.34	Cum	**944.26**	63583.41	6358.34		
		Total					**8326.73**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF MARUKA MR AT KM 2.164									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	167.22	Cum	**195.20**	32641.64			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	37.25	Cum	**6381.70**	237747.56	12.07	16.76	33.53
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.25	Cum	**6914.20**	326670.05	19.49	20.32	40.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	262.75	Sqm	**578.60**	152026.65			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.93	MT	**73574.90**	68219.22			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	46.54	Cum	**149.30**	6949.06			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	37.08	Cum	**1075.00**	39861.48			
		Coarse Aggregates (100 Km lead)	74.16	Cum	**1398.00**	103676.94			
		Cement (30 km lead)	31.56	MT	**742.00**	23417.20			
		Steel (30 Km lead)	0.93	MT	**742.00**	687.99			
		Hume Pipe (30 Km)	12.50	RM	**1838.00**	22975.00			
TOTAL (In Rs.)						**₹ 11,11,324.68**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	37.08	Cum	**584.64**	21678.71	2167.87		
		Coarse Aggregate	74.16	Cum	**944.26**	70027.17	7002.72		
		Total					**9170.59**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF RAMPUR MR AT KM 0.457									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	159.64	Cum	**195.20**	31161.95			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	37.25	Cum	**6381.70**	237747.56	12.07	16.76	33.53
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.25	Cum	**6914.20**	326670.05	19.49	20.32	40.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	262.75	Sqm	**578.60**	152026.65			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.93	MT	**73574.90**	68219.22			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	47.00	Cum	**149.30**	7017.37			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	37.08	Cum	**1075.00**	39861.48			
		Coarse Aggregates (100 Km lead)	74.16	Cum	**1398.00**	103676.94			
		Cement (30 km lead)	31.56	MT	**742.00**	23417.20			
		Steel (30 Km lead)	0.93	MT	**742.00**	687.99			
		Hume Pipe (30 Km)	12.50	RM	**1838.00**	22975.00			
TOTAL (In Rs.)						**₹ 11,09,913.29**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	37.08	Cum	**584.64**	21678.71	2167.87		
		Coarse Aggregate	74.16	Cum	**944.26**	70027.17	7002.72		
		Total					**9170.59**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF GULAB BIGHA MR AT KM 0.152									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	158.21	Cum	**195.20**	30883.20			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	39.43	Cum	**6381.70**	251622.93	12.77	17.74	35.49
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.25	Cum	**6914.20**	326670.05	19.49	20.32	40.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	270.02	Sqm	**578.60**	156232.61			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	15.00	RM	**6002.82**	90042.30			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**1713.33**	25699.96			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.93	MT	**73574.90**	68219.22			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	45.88	Cum	**149.30**	6849.33			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	38.06	Cum	**1075.00**	40913.28			
		Coarse Aggregates (100 Km lead)	76.12	Cum	**1398.00**	106412.57			
		Cement (30 km lead)	32.26	MT	**742.00**	23939.90			
		Steel (30 Km lead)	0.93	MT	**742.00**	687.99			
		Hume Pipe (30 Km)	15.00	RM	**1838.00**	27570.00			
TOTAL (In Rs.)						**₹ 11,55,743.34**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	38.06	Cum	**584.64**	22250.73	2225.07		
		Coarse Aggregate	76.12	Cum	**944.26**	71874.92	7187.49		
		Total					**9412.57**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF GULAB BIGHA MR AT KM 0.457									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	273.88	Cum	**195.20**	53461.82			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	47.77	Cum	**6381.70**	304864.02	15.48	21.50	42.99
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	71.60	Cum	**6914.20**	495089.75	29.54	30.79	61.58
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	328.69	Sqm	**578.60**	190182.51			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	20.00	RM	**6002.82**	120056.40			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	20.00	RM	**1713.33**	34266.61			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.41	MT	**73574.90**	103390.67			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	72.32	Cum	**149.30**	10797.99			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	52.29	Cum	**1075.00**	56208.82			
		Coarse Aggregates (100 Km lead)	104.57	Cum	**1398.00**	146195.22			
		Cement (30 km lead)	45.01	MT	**742.00**	33401.11			
		Steel (30 Km lead)	1.41	MT	**742.00**	1042.69			
		Hume Pipe (30 Km)	20.00	RM	**1838.00**	36760.00			
TOTAL (In Rs.)						**₹ 15,85,717.60**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	52.29	Cum	**584.64**	30569.23	3056.92		
		Coarse Aggregate	104.57	Cum	**944.26**	98745.56	9874.56		
		Total					**12931.48**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF GULAB BIGHA MR AT KM 1.128									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	224.66	Cum	**195.20**	43854.03			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	47.77	Cum	**6381.70**	304864.02	15.48	21.50	42.99
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	71.60	Cum	**6914.20**	495089.75	29.54	30.79	61.58
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	328.69	Sqm	**578.60**	190182.51			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	20.00	RM	**6002.82**	120056.40			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	20.00	RM	**1713.33**	34266.61			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.41	MT	**73574.90**	103390.67			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	72.32	Cum	**149.30**	10797.99			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	52.29	Cum	**1075.00**	56208.82			
		Coarse Aggregates (100 Km lead)	104.57	Cum	**1398.00**	146195.22			
		Cement (30 km lead)	45.01	MT	**742.00**	33401.11			
		Steel (30 Km lead)	1.41	MT	**742.00**	1042.69			
		Hume Pipe (30 Km)	20.00	RM	**1838.00**	36760.00			
TOTAL (In Rs.)						**₹ 15,76,109.81**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	52.29	Cum	**584.64**	30569.23	3056.92		
		Coarse Aggregate	104.57	Cum	**944.26**	98745.56	9874.56		
		Total					**12931.48**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF PATHRA MR.							
Cross Drainage at Ch. 1.750 KM							
S. No.	**Item of Works**	**No.**		**Width**	**Height**	**Qty.**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.54*	*7.47*		*56.36*	*Cum*
		1	*5.61*	*1.66*		*9.30*	*Cum*
	Middle Portion	*1*	*1.73*	*33.62*		*58.16*	*Cum*
	Right Portion	*1*	*7.54*	*7.47*		*56.36*	*Cum*
		1	*5.61*	*1.66*		*9.30*	*Cum*
	TOTAL					**189.48**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.48*	*1.03*	*0.30*	*2.93*	*Cum*
		1	*5.61*	*3.56*	*0.30*	*5.98*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.48*	*1.03*	*0.30*	*2.93*	*Cum*
		1	*5.61*	*3.56*	*0.30*	*5.98*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.73*	*0.30*	*7.79*	*Cum*
		1	*15.00*	*0.35*		*5.25*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.22*	*2.50*	*0.20*	*4.22*	*Cum*
	Pipe Section	*5*	*0.30*	*1.63*	*1.50*	*3.67*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*0.64*		*-0.95*	*Cum*
	TOTAL					**37.79**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.18*	*0.30*	*0.20*	*0.55*	*Cum*
		1	*9.18*	*0.51*	*1.43*	*6.76*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.23*	*0.30*	*0.50*	*0.33*	*Cum*
		1	*2.23*	*0.72*	*2.44*	*3.92*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.01*	*0.30*	*0.35*	*0.84*	*Cum*
		2	*4.01*	*0.62*	*1.94*	*9.58*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.18*	*0.30*	*0.20*	*0.55*	*Cum*
		1	*9.18*	*0.51*	*1.43*	*6.76*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.23*	*0.30*	*0.50*	*0.33*	*Cum*
		1	*2.23*	*0.72*	*2.44*	*3.92*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.01*	*0.30*	*0.35*	*0.84*	*Cum*
		2	*4.01*	*0.62*	*1.94*	*9.58*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.77*	*0.636*		*-0.98*	*Cum*
	TOTAL					**42.99**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*9.48*		*0.30*	5.69	*Sqm*
		2		*1.03*	*0.30*	0.62	*Sqm*

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
		2	5.61		0.30	3.36	*Sqm*
		2		3.56	0.30	2.13	*Sqm*
	300 mm Thick Right Abutment	2	*9.48*		*0.30*	5.69	*Sqm*
		2		*1.03*	*0.30*	0.62	*Sqm*
		2	5.61		0.30	3.36	*Sqm*
		2		3.56	0.30	2.13	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.22		0.20	3.38	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.50	4.50	*Sqm*
		10		1.63	1.50	24.45	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.18*		*0.20*	3.67	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*9.18*		*1.43*	26.26	*Sqm*
		2		0.51	1.43	1.47	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.23		0.50	2.23	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.23		2.44	10.87	*Sqm*
		2		0.72	2.44	3.52	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.01		0.35	5.61	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.01		1.94	31.02	*Sqm*
		4		0.62	1.94	4.78	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.23		2.44	10.87	*Sqm*
		2		0.72	2.44	3.52	*Sqm*
		2	2.23		0.50	2.23	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.18		1.43	26.26	*Sqm*
		2		0.51	1.43	1.47	*Sqm*
		2	9.18		0.20	3.67	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.01		0.35	5.61	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.01		1.94	31.02	*Sqm*
		4		0.62	1.94	4.78	*Sqm*
	TOTAL					**238.48**	***Sqm***
5	Providing 900 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	900 mm dia pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*42.99*	*0.0025*	*0.107*	*7850.00*	*843.718*	*Kg*
	TOTAL					*843.718*	*Kg*
	TOTAL					**0.84**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.48*	*0.64*		*6.04*	*Cum*
	D/S Transitions Walls	*1*	*9.48*	*0.64*		*6.04*	*Cum*
	Above Hume Pipe	*1*	*20.04*		*1.73*	*34.67*	*Cum*
	TOTAL					**46.75**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 2.073 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1	*5.85*	*2.12*		*12.40*	*Cum*
	Middle Portion	*1*	*1.83*	*31.88*		*58.34*	*Cum*
	Right Portion	*1*	*7.74*	*9.24*		*71.54*	*Cum*
		1	*5.85*	*2.12*		*12.40*	*Cum*
	TOTAL					**226.23**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.37*		*4.65*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.32*	*2.50*	*0.20*	*4.32*	*Cum*
	Pipe Section	*4*	*0.30*	*1.73*	*1.94*	*4.03*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**37.25**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.62*	*2.04*	*10.69*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.62*	*2.04*	*10.63*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.188*		*-2.00*	*Cum*
	TOTAL					**47.25**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	300 mm Thick Right Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.32		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.73	1.94	26.85	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.34*		*0.30*	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.34*		*1.53*	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.24		0.40	6.79	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.24		2.04	34.55	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
		2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.34		1.53	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
		2	9.34		0.30	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.04	34.35	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	TOTAL					**262.75**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.25*	*0.0025*	*0.118*	*7850.00*	*927.208*	*Kg*
	TOTAL					*927.208*	*Kg*
	TOTAL					**0.93**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	D/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	Above Hume Pipe	*1*	*20.30*		*1.83*	*37.15*	*Cum*
	TOTAL					**52.00**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF DABUR MR						
	Cross Drainage at Ch. 2.774 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.03*	*9.68*		*68.08*	*Cum*
	Middle Portion	*1*	*1.37*	*21.18*		*29.02*	*Cum*
	Right Portion	*1*	*6.99*	*9.68*		*67.65*	*Cum*
		1	*5.06*	*3.38*		*17.10*	*Cum*
	TOTAL					**199.27**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*8.90*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.16*	*3.50*	*0.30*	*5.41*	*Cum*
	300 mm Thick Right Abutment	*1*	*8.91*	*0.77*	*0.30*	*2.06*	*Cum*
		1	*5.06*	*3.50*	*0.30*	*5.31*	*Cum*
	Below Pipe Section	*1*	*10.00*	*1.37*	*0.30*	*4.11*	*Cum*
		2	*10.00*	*0.51*	*0.24*	*10.15*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*3.87*	*2.50*	*0.20*	*3.87*	*Cum*
	Pipe Section	*3*	*0.30*	*1.27*	*1.14*	*1.30*	*Cum*
	Deduct Area of Pipe	*3*	*0.30*	*0.47*		*-0.42*	*Cum*
	TOTAL					**33.85**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*8.60*	*0.30*	*0.30*	*0.77*	*Cum*
		1	*8.60*	*0.46*	*1.07*	*4.24*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*1.87*	*0.30*	*0.50*	*0.28*	*Cum*
		1	*1.87*	*0.65*	*2.32*	*2.81*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*3.95*	*0.30*	*0.40*	*0.95*	*Cum*
		2	*3.95*	*0.55*	*1.70*	*7.42*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*8.61*	*0.30*	*0.30*	*0.77*	*Cum*
		1	*8.61*	*0.46*	*1.07*	*4.24*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*1.87*	*0.30*	*0.50*	*0.28*	*Cum*
		1	*1.87*	*0.65*	*2.32*	*2.81*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*3.95*	*0.55*	*1.70*	*7.43*	*Cum*
		2	*3.95*	*0.30*	*0.40*	*0.95*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.79*	*0.465*		*-0.74*	*Cum*
	TOTAL					**32.23**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*8.90*		*0.30*	5.34	*Sqm*
		2		*0.77*	*0.30*	0.46	*Sqm*
		2	5.16		0.30	3.09	*Sqm*
		2		3.50	0.30	2.10	*Sqm*
	300 mm Thick Right Abutment	2	*8.91*		*0.30*	5.34	*Sqm*
		2		*0.77*	*0.30*	0.46	*Sqm*
		2	5.06		0.30	3.04	*Sqm*
		2		3.50	0.30	2.10	*Sqm*
	200 mm Thick Left and Right Portion Well	4	3.87		0.20	3.09	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	6	0.30		1.14	2.05	*Sqm*
		6		1.27	1.14	8.69	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*8.60*		*0.30*	5.16	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*8.60*		*1.07*	18.41	*Sqm*
		2		0.46	1.07	0.99	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	1.87		0.50	1.87	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	1.87		2.32	8.68	*Sqm*
		2		0.65	2.32	3.01	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	3.95		0.40	6.32	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	3.95		1.70	26.79	*Sqm*
		4		0.55	1.70	3.76	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	1.87		2.32	8.68	*Sqm*
		2		0.65	2.32	3.01	*Sqm*
		2	1.87		0.50	1.87	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	8.61		1.07	18.42	*Sqm*
		2		0.46	1.07	0.99	*Sqm*
		2	8.61		0.30	5.16	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	3.95		1.70	26.80	*Sqm*
		4		0.55	1.70	3.76	*Sqm*
		4	3.95		0.40	6.32	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
	TOTAL					**189.68**	***Sqm***
5	RCC Pipe NP3 heavy duty non pressure pipe 600 mm dia with spigot						
	0.6 m dia pipe	*4*	*2.50*			*10.00*	*RM*
	TOTAL					**10.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.23*	*0.0025*	*0.081*	*7850.00*	*632.428*	*Kg*
	TOTAL					*632.428*	*Kg*
	TOTAL					**0.63**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*8.90*	*0.50*		*4.45*	*Cum*
	D/S Transitions Walls	*1*	*8.91*	*0.50*		*4.45*	*Cum*
	Above Hume Pipe	*1*	*22.83*		*1.37*	*31.28*	*Cum*
	TOTAL					**40.18**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF SADOPUR MR						
	Cross Drainage at Ch. 0.381 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.74*	*9.89*		*76.56*	*Cum*
		1	*5.85*	*2.31*		*13.50*	*Cum*
	Middle Portion	*1*	*1.83*	*35.81*		*65.53*	*Cum*
	Right Portion	*1*	*7.74*	*9.89*		*76.56*	*Cum*
		1	*5.85*	*2.31*		*13.50*	*Cum*
	TOTAL					**245.65**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		1	*15.00*	*0.37*		*5.58*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.32*	*2.50*	*0.20*	*4.32*	*Cum*
	Pipe Section	*5*	*0.30*	*1.73*	*1.94*	*5.03*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.19*		*-1.78*	*Cum*
	TOTAL					**40.21**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.62*	*2.04*	*10.69*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.62*	*2.04*	*10.63*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.188*		*-2.00*	*Cum*
	TOTAL					**47.25**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	300 mm Thick Right Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.32		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		1.73	1.94	33.56	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.34*		*0.30*	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.34*		*1.53*	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.24		0.40	6.79	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.24		2.04	34.55	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
		2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.34		1.53	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
		2	9.34		0.30	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.04	34.35	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	TOTAL					**270.63**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.25*	*0.0025*	*0.118*	*7850.00*	*927.208*	*Kg*
	TOTAL					*927.208*	*Kg*
	TOTAL					**0.93**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	D/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	Above Hume Pipe	*1*	*24.20*		*1.83*	*44.29*	*Cum*
	TOTAL					**59.13**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF SADOPUR MR						
	Cross Drainage at Ch. 1.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.58*	*9.03*		*86.52*	*Cum*
		1	*7.60*	*1.88*		*14.31*	*Cum*
	Middle Portion	*1*	*3.66*	*25.49*		*93.29*	*Cum*
	Right Portion	*1*	*9.60*	*9.03*		*86.69*	*Cum*
		1	*7.64*	*1.88*		*14.38*	*Cum*
	TOTAL					**295.20**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Left Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*10.23*	*3.66*	*0.30*	*11.23*	*Cum*
		1	*10.23*	*0.75*		*7.63*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Pipe Section	*4*	*0.30*	*3.56*	*1.60*	*6.84*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*2.38*		*-2.85*	*Cum*
	TOTAL					**53.38**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.55*	*1.66*	*10.28*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.71*	*2.23*	*12.82*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.62*	*0.30*	*0.20*	*0.70*	*Cum*
		1	*11.62*	*0.72*	*1.78*	*14.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.79*	*2.29*	*15.36*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.24*	*2.375*		*-5.91*	*Cum*
	TOTAL					**71.60**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.60	3.84	*Sqm*
		8		3.56	1.60	45.57	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.66*	37.42	*Sqm*
		2		0.55	1.66	1.83	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.06		0.20	3.25	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
		4	4.06		2.23	36.17	*Sqm*
		4		0.71	2.23	6.31	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.16		2.80	23.32	*Sqm*
		2		0.87	2.80	4.88	*Sqm*
		2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	11.62		1.78	41.35	*Sqm*
		2		0.72	1.78	2.55	*Sqm*
		2	11.62		0.20	4.65	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.29	38.70	*Sqm*
		4		0.79	2.29	7.27	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**341.05**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*10*	*2.50*			*25.00*	*RM*
	TOTAL					**25.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*71.60*	*0.0025*	*0.179*	*7850.00*	*1405.244*	*Kg*
	TOTAL					*1405.244*	*Kg*
	TOTAL					**1.41**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.55*	*0.79*		*9.17*	*Cum*
	D/S Transitions Walls	*1*	*11.55*	*0.79*		*9.17*	*Cum*
	Above Hume Pipe	*1*	*19.37*		*3.66*	*70.89*	*Cum*
	TOTAL					**89.24**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF DHARAMPUR SUB DY.						
	Cross Drainage at Ch. 1.900 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.98*	*13.52*		*134.98*	*Cum*
		1	*6.02*	*3.14*		*18.94*	*Cum*
	Middle Portion	*1*	*2.04*	*36.87*		*75.21*	*Cum*
	Right Portion	*1*	*9.98*	*13.52*		*134.98*	*Cum*
		1	*6.02*	*3.14*		*18.94*	*Cum*
	TOTAL					**383.07**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.40*	*0.30*	*7.96*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.40*	*0.30*	*7.96*	*Cum*
	Below Pipe Section	*1*	*20.00*	*2.04*	*0.30*	*12.24*	*Cum*
		1	*20.00*	*0.38*		*7.68*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Pipe Section	*7*	*0.30*	*1.94*	*1.94*	*7.90*	*Cum*
	Deduct Area of Pipe	*7*	*0.30*	*1.63*		*-3.42*	*Cum*
	TOTAL					**51.58**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*1.10*	*5.34*	*15.41*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.14*	*0.30*	*0.40*	*0.99*	*Cum*
		2	*4.14*	*0.83*	*3.54*	*24.36*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*1.10*	*5.34*	*15.41*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.14*	*0.83*	*3.54*	*24.36*	*Cum*
		2	*4.14*	*0.30*	*0.40*	*0.99*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.01*	*1.628*		*-3.28*	*Cum*
	TOTAL					**99.67**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.40	0.30	2.64	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.40	0.30	2.64	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	14	0.30		1.94	8.15	*Sqm*
		14		1.94	1.94	52.69	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		5.34	27.99	*Sqm*
		2		1.10	5.34	11.76	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.14		0.40	3.31	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.14		3.54	58.62	*Sqm*
		4		0.83	3.54	11.77	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		5.34	55.98	*Sqm*
		4		1.10	5.34	23.52	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		1.74	67.40	*Sqm*
		4		0.56	1.74	3.90	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.14		3.54	58.62	*Sqm*
		4		0.83	3.54	11.77	*Sqm*
		4	4.14		0.40	6.62	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
	TOTAL					**499.61**	***Sqm***
5	Providing 1200 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1200 mm dia pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*99.67*	*0.0025*	*0.249*	*7850.00*	*1956.070*	*Kg*
	TOTAL					*1956.070*	*Kg*
	TOTAL					**1.96**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	Above Hume Pipe	*1*	*23.12*		*2.04*	*47.16*	*Cum*
	TOTAL					**65.47**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 3.400 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*11.47*	*0.76*		*8.75*	*Cum*
		1	*5.85*	*12.58*		*73.66*	*Cum*
	Middle Portion	*1*	*3.66*	*34.34*		*125.68*	*Cum*
	Right Portion	*1*	*11.47*	*0.76*		*8.75*	*Cum*
		1	*5.85*	*12.58*		*73.66*	*Cum*
	TOTAL					**290.51**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.47*	*1.06*	*0.30*	*3.64*	*Cum*
		1	*7.55*	*4.31*	*0.30*	*9.76*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.47*	*1.06*	*0.30*	*3.64*	*Cum*
		1	*7.55*	*4.31*	*0.30*	*9.76*	*Cum*
	Below Pipe Section	*1*	*17.50*	*3.66*	*0.30*	*19.22*	*Cum*
		1	*17.50*	*0.72*		*12.64*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Pipe Section	*6*	*0.30*	*3.56*	*1.94*	*12.43*	*Cum*
	Deduct Area of Pipe	*12*	*0.30*	*1.19*		*-4.28*	*Cum*
	TOTAL					**72.96**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*5.59*	*0.30*	*0.30*	*0.50*	*Cum*
		1	*5.59*	*0.53*	*1.53*	*4.53*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.23*	*0.30*	*0.50*	*0.63*	*Cum*
		1	*4.23*	*1.05*	*5.03*	*22.42*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.33*	*0.30*	*0.40*	*1.04*	*Cum*
		2	*4.33*	*0.79*	*3.28*	*22.47*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*5.59*	*0.30*	*0.30*	*0.50*	*Cum*
		1	*5.59*	*0.53*	*1.53*	*4.53*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.23*	*0.30*	*0.50*	*0.63*	*Cum*
		1	*4.23*	*1.05*	*5.03*	*22.42*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.33*	*0.79*	*3.28*	*22.47*	*Cum*
		2	*4.33*	*0.30*	*0.40*	*1.04*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.54*	*2.375*		*-7.29*	*Cum*
	TOTAL					**95.88**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*11.47*		*0.30*	6.88	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.55		0.30	4.53	*Sqm*
		2		4.31	0.30	2.59	*Sqm*
	300 mm Thick Right Abutment	2	*11.47*		*0.30*	6.88	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.55		0.30	4.53	*Sqm*
		2		4.31	0.30	2.59	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	12	0.30		1.94	6.98	*Sqm*
		24		3.56	1.94	165.75	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*5.59*		*0.30*	3.35	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*5.59*		*1.53*	17.09	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.23		0.50	8.45	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.23		5.03	42.51	*Sqm*
		2		1.05	5.03	10.61	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.33		0.40	3.46	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.33		3.28	56.74	*Sqm*
		4		0.79	3.28	10.39	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.23		5.03	85.03	*Sqm*
		4		1.05	5.03	21.22	*Sqm*
		4	4.23		0.50	8.45	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	5.59		1.53	34.19	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
		4	5.59		0.30	6.70	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.33		3.28	56.74	*Sqm*
		4		0.79	3.28	10.39	*Sqm*
		4	4.33		0.40	6.92	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
	TOTAL					**598.50**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1.0 m dia pipe	*14*	*2.50*			*35.00*	*RM*
	TOTAL					**35.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*95.88*	*0.0025*	*0.240*	*7850.00*	*1881.643*	*Kg*
	TOTAL					*1881.643*	*Kg*
	TOTAL					**1.88**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.47*	*0.92*		*10.52*	*Cum*
	D/S Transitions Walls	*1*	*11.47*	*0.92*		*10.52*	*Cum*
	Above Hume Pipe	*1*	*23.12*		*3.66*	*84.62*	*Cum*
	TOTAL					**105.65**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 4.250 KM						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.98*	*0.92*		*9.19*	*Cum*
		1	*6.02*	*14.93*		*89.93*	*Cum*
	Middle Portion	*1*	*2.04*	*43.25*		*88.23*	*Cum*
	Right Portion	*1*	*9.98*	*0.92*		*9.19*	*Cum*
		1	*6.02*	*14.93*		*89.93*	*Cum*
	TOTAL					**286.46**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.13*	*0.30*	*7.47*	*Cum*
	300 mm Thick Right Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.13*	*0.30*	*7.47*	*Cum*
	Below Pipe Section	*1*	*17.50*	*2.04*	*0.30*	*10.71*	*Cum*
		1	*17.50*	*0.38*		*6.72*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Pipe Section	*6*	*0.30*	*1.94*	*1.94*	*6.77*	*Cum*
	Deduct Area of Pipe	*6*	*0.30*	*1.63*		*-2.93*	*Cum*
	TOTAL					**47.47**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.97*	*4.44*	*11.24*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.27*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.27*	*0.76*	*3.09*	*20.14*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.97*	*4.44*	*11.24*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.76*	*3.09*	*19.91*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.33*	*1.628*		*-4.31*	*Cum*
	TOTAL					**81.70**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.13	0.30	2.48	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.13	0.30	2.48	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	12	0.30		1.94	6.98	*Sqm*
		12		1.94	1.94	45.16	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		4.44	23.27	*Sqm*
		2		0.97	4.44	8.58	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.27		0.40	3.42	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.27		3.09	52.76	*Sqm*
		4		0.76	3.09	9.44	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		4.44	46.55	*Sqm*
		4		0.97	4.44	17.16	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		1.74	67.40	*Sqm*
		4		0.56	1.74	3.90	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		3.09	52.16	*Sqm*
		4		0.76	3.09	9.44	*Sqm*
	TOTAL					**450.15**	***Sqm***
5	Providing 1200 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1200 mm dia pipe	*7*	*2.50*			*17.50*	*RM*
	TOTAL					**17.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*81.70*	*0.0025*	*0.204*	*7850.00*	*1603.303*	*Kg*
	TOTAL					*1603.303*	*Kg*
	TOTAL					**1.60**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	Above Hume Pipe	*1*	*27.14*		*2.04*	*55.37*	*Cum*
	TOTAL					**73.67**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 5.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.98*	*0.92*		*9.19*	*Cum*
		1	*4.19*	*12.71*		*53.21*	*Cum*
	Middle Portion	*1*	*2.04*	*43.38*		*88.50*	*Cum*
	Right Portion	*1*	*9.98*	*0.92*		*9.19*	*Cum*
		1	*4.19*	*12.71*		*53.21*	*Cum*
	TOTAL					**213.28**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.06*	*0.30*	*3.17*	*Cum*
		1	*6.02*	*3.64*	*0.30*	*6.57*	*Cum*
	300 mm Thick Right Abutment	*1*	*9.98*	*1.06*	*0.30*	*3.17*	*Cum*
		1	*6.02*	*3.64*	*0.30*	*6.57*	*Cum*
	Below Pipe Section	*1*	*15.00*	*2.04*	*0.30*	*9.18*	*Cum*
		1	*15.00*	*0.38*		*5.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Pipe Section	*5*	*0.30*	*1.94*	*1.94*	*5.65*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.63*		*-2.44*	*Cum*
	TOTAL					**42.17**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.94*	*4.24*	*10.40*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.75*	*2.99*	*19.00*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.94*	*4.24*	*10.40*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.75*	*2.99*	*18.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.628*		*-2.74*	*Cum*
	TOTAL					**79.42**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		1.94	1.94	37.64	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		4.24	22.23	*Sqm*
		2		0.94	4.24	7.94	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.24		0.40	3.40	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.24		2.99	50.76	*Sqm*
		4		0.75	2.99	8.95	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		4.24	44.45	*Sqm*
		4		0.94	4.24	15.87	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		1.74	67.40	*Sqm*
		4		0.56	1.74	3.90	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.99	50.47	*Sqm*
		4		0.75	2.99	8.95	*Sqm*
	TOTAL					**431.04**	***Sqm***
5	Providing 1200 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1200 mm dia pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*79.42*	*0.0025*	*0.199*	*7850.00*	*1558.582*	*Kg*
	TOTAL					*1558.582*	*Kg*
	TOTAL					**1.56**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	Above Hume Pipe	*1*	*25.61*		*2.04*	*52.24*	*Cum*
	TOTAL					**70.55**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 7.750 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.64*	*0.76*		*7.37*	*Cum*
		1	*5.85*	*9.81*		*57.34*	*Cum*
	Middle Portion	*1*	*1.83*	*36.45*		*66.70*	*Cum*
	Right Portion	*1*	*5.85*	*0.76*		*4.47*	*Cum*
		1	*5.85*	*9.81*		*57.34*	*Cum*
	TOTAL					**193.21**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	300 mm Thick Right Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		1	*15.00*	*0.37*		*5.58*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.32*	*2.50*	*0.20*	*4.32*	*Cum*
	Pipe Section	*5*	*0.30*	*1.73*	*1.94*	*5.03*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.19*		*-1.78*	*Cum*
	TOTAL					**40.21**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.34*	*0.30*	*0.30*	*1.68*	*Cum*
		2	*9.34*	*0.53*	*1.53*	*15.14*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*2.42*	*0.30*	*0.50*	*0.72*	*Cum*
		2	*2.42*	*0.71*	*2.54*	*8.69*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.62*	*2.04*	*10.69*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*9.34*	*0.30*	*0.30*	*1.68*	*Cum*
		2	*9.34*	*0.53*	*1.53*	*15.14*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*2.42*	*0.30*	*0.50*	*0.72*	*Cum*
		2	*2.42*	*0.71*	*2.54*	*8.69*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.62*	*2.04*	*10.63*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.188*		*-2.00*	*Cum*
	TOTAL					**73.81**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	300 mm Thick Right Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.32		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		1.73	1.94	33.56	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	4	*9.34*		*0.30*	11.21	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
		4	*9.34*		*1.53*	57.17	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.42		0.50	4.83	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		4	2.42		2.54	24.54	*Sqm*
		4		0.71	2.54	7.19	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.24		0.40	6.79	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.24		2.04	34.55	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.42		2.54	24.54	*Sqm*
		4		0.71	2.54	7.19	*Sqm*
		4	2.42		0.50	4.83	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.34		1.53	57.17	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
		4	9.34		0.30	11.21	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.04	34.35	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	TOTAL					**380.80**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*73.81*	*0.0025*	*0.185*	*7850.00*	*1448.442*	*Kg*
	TOTAL					*1448.442*	*Kg*
	TOTAL					**1.45**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	D/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	Above Hume Pipe	*1*	*19.62*		*3.62*	*70.95*	*Cum*
	TOTAL					**85.79**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF ANTI MR						
	Cross Drainage at Ch. 5.861 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*11.55*	*0.79*		*9.17*	*Cum*
		1	*7.60*	*12.64*		*96.08*	*Cum*
	Middle Portion	*1*	*3.66*	*30.55*		*111.81*	*Cum*
	Right Portion	*1*	*11.55*	*0.79*		*9.17*	*Cum*
		1	*7.64*	*9.20*		*70.27*	*Cum*
	TOTAL					**296.50**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*10.23*	*3.66*	*0.30*	*11.23*	*Cum*
		1	*10.23*	*0.75*		*7.63*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Pipe Section	*4*	*0.30*	*3.56*	*1.60*	*6.84*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*2.38*		*-2.85*	*Cum*
	TOTAL					**53.38**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.55*	*1.66*	*10.28*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.71*	*2.23*	*12.82*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.62*	*0.30*	*0.20*	*0.70*	*Cum*
		1	*11.62*	*0.72*	*1.78*	*14.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.79*	*2.29*	*15.36*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.24*	*2.375*		*-5.91*	*Cum*
	TOTAL					**71.60**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.60	3.84	*Sqm*
		8		3.56	1.60	45.57	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.66*	37.42	*Sqm*
		2		0.55	1.66	1.83	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.06		0.20	3.25	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
		4	4.06		2.23	36.17	*Sqm*
		4		0.71	2.23	6.31	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.16		2.80	23.32	*Sqm*
		2		0.87	2.80	4.88	*Sqm*
		2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	11.62		1.78	41.35	*Sqm*
		2		0.72	1.78	2.55	*Sqm*
		2	11.62		0.20	4.65	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.29	38.70	*Sqm*
		4		0.79	2.29	7.27	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**341.05**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*10*	*2.50*			*25.00*	*RM*
	TOTAL					**25.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*71.60*	*0.0025*	*0.179*	*7850.00*	*1405.244*	*Kg*
	TOTAL					*1405.244*	*Kg*
	TOTAL					**1.41**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.55*	*0.77*		*8.90*	*Cum*
	D/S Transitions Walls	*1*	*11.55*	*0.77*		*8.90*	*Cum*
	Above Hume Pipe	*1*	*17.73*		*3.66*	*64.89*	*Cum*
	TOTAL					**82.68**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF MARUKA MR.							
Cross Drainage at Ch. 0.091 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.49*	*0.68*		*5.06*	*Cum*
		1	*5.55*	*9.44*		*52.35*	*Cum*
	Middle Portion	*1*	*1.70*	*34.00*		*57.80*	*Cum*
	Right Portion	*1*	*7.49*	*0.68*		*5.06*	*Cum*
	TOTAL					**172.61**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.43*	*1.02*	*0.30*	*2.89*	*Cum*
		1	*5.55*	*3.55*	*0.30*	*5.91*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.43*	*1.02*	*0.30*	*2.89*	*Cum*
		1	*5.55*	*3.55*	*0.30*	*5.91*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.70*	*0.30*	*6.38*	*Cum*
		1	*12.50*	*0.37*		*4.63*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.20*	*2.50*	*0.20*	*4.20*	*Cum*
	Pipe Section	*4*	*0.30*	*1.60*	*1.94*	*3.72*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**35.09**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.13*	*0.30*	*0.30*	*0.82*	*Cum*
		1	*9.13*	*0.51*	*1.40*	*6.52*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.27*	*0.30*	*0.50*	*0.34*	*Cum*
		1	*2.27*	*0.68*	*2.50*	*3.82*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.10*	*0.30*	*0.40*	*0.98*	*Cum*
		2	*4.10*	*0.59*	*1.95*	*9.46*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.13*	*0.30*	*0.30*	*0.82*	*Cum*
		1	*9.13*	*0.51*	*1.40*	*6.52*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.27*	*0.30*	*0.50*	*0.34*	*Cum*
		1	*2.27*	*0.68*	*2.50*	*3.82*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.10*	*0.30*	*0.40*	*0.98*	*Cum*
		2	*4.10*	*0.59*	*1.95*	*9.46*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.98*	*1.188*		*-2.33*	*Cum*
	TOTAL					**41.58**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.43*		*0.30*	5.66	*Sqm*
		2		*1.02*	*0.30*	0.61	*Sqm*
		2	5.55		0.30	3.33	*Sqm*
		2		3.55	0.30	2.13	*Sqm*
	300 mm Thick Right Abutment	2	*9.43*		*0.30*	5.66	*Sqm*
		2		*1.02*	*0.30*	0.61	*Sqm*
		2	5.55		0.30	3.33	*Sqm*
		2		3.55	0.30	2.13	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.20		0.20	3.36	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.60	1.94	24.83	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.13*		*0.30*	5.48	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.13*		*1.40*	25.58	*Sqm*
		2		0.51	1.40	1.43	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.27		0.50	2.27	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.27		2.50	11.33	*Sqm*
		2		0.68	2.50	3.38	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.10		0.40	6.55	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.10		1.95	31.95	*Sqm*
		4		0.59	1.95	4.62	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.27		2.50	11.33	*Sqm*
		2		0.68	2.50	3.38	*Sqm*
		2	2.27		0.50	2.27	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.13		1.40	25.58	*Sqm*
		2		0.51	1.40	1.43	*Sqm*
		2	9.13		0.30	5.48	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.10		0.40	6.55	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.10		1.95	31.95	*Sqm*
		4		0.59	1.95	4.62	*Sqm*
	TOTAL					**245.38**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*41.58*	*0.0025*	*0.104*	*7850.00*	*816.031*	*Kg*
	TOTAL					*816.031*	*Kg*
	TOTAL					**0.82**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.43*	*0.70*		*6.60*	*Cum*
	D/S Transitions Walls	*1*	*9.43*	*0.70*		*6.60*	*Cum*
	Above Hume Pipe	*1*	*18.34*		*1.70*	*31.18*	*Cum*
	TOTAL					**44.39**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 1.250 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.49*	*0.68*		*5.06*	*Cum*
		1	*5.55*	*9.53*		*52.87*	*Cum*
	Middle Portion	*1*	*1.70*	*30.80*		*52.36*	*Cum*
	Right Portion	*1*	*7.49*	*0.68*		*5.06*	*Cum*
	TOTAL					**168.22**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.43*	*1.02*	*0.30*	*2.89*	*Cum*
		1	*5.55*	*3.55*	*0.30*	*5.91*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.43*	*1.02*	*0.30*	*2.89*	*Cum*
		1	*5.55*	*3.55*	*0.30*	*5.91*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.70*	*0.30*	*6.38*	*Cum*
		1	*12.50*	*0.37*		*4.63*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.20*	*2.50*	*0.20*	*4.20*	*Cum*
	Pipe Section	*4*	*0.30*	*1.60*	*1.94*	*3.72*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**35.09**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.13*	*0.30*	*0.30*	*0.82*	*Cum*
		1	*9.13*	*0.51*	*1.40*	*6.52*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.27*	*0.30*	*0.50*	*0.34*	*Cum*
		1	*2.27*	*0.68*	*2.50*	*3.82*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.10*	*0.30*	*0.40*	*0.98*	*Cum*
		2	*4.10*	*0.59*	*1.95*	*9.46*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.13*	*0.30*	*0.30*	*0.82*	*Cum*
		1	*9.13*	*0.51*	*1.40*	*6.52*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.27*	*0.30*	*0.50*	*0.34*	*Cum*
		1	*2.27*	*0.68*	*2.50*	*3.82*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.10*	*0.30*	*0.40*	*0.98*	*Cum*
		2	*4.10*	*0.59*	*1.95*	*9.46*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.98*	*1.188*		*-2.33*	*Cum*
	TOTAL					**41.58**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*9.43*		*0.30*	5.66	*Sqm*

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
		2		*1.02*	*0.30*	0.61	*Sqm*
		2	5.55		0.30	3.33	*Sqm*
		2		3.55	0.30	2.13	*Sqm*
	300 mm Thick Right Abutment	2	*9.43*		*0.30*	5.66	*Sqm*
		2		*1.02*	*0.30*	0.61	*Sqm*
		2	5.55		0.30	3.33	*Sqm*
		2		3.55	0.30	2.13	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.20		0.20	3.36	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.60	1.94	24.83	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.13*		*0.30*	5.48	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.13*		*1.40*	25.58	*Sqm*
		2		0.51	1.40	1.43	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.27		0.50	2.27	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.27		2.50	11.33	*Sqm*
		2		0.68	2.50	3.38	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.10		0.40	6.55	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.10		1.95	31.95	*Sqm*
		4		0.59	1.95	4.62	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.27		2.50	11.33	*Sqm*
		2		0.68	2.50	3.38	*Sqm*
		2	2.27		0.50	2.27	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.13		1.40	25.58	*Sqm*
		2		0.51	1.40	1.43	*Sqm*
		2	9.13		0.30	5.48	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.10		0.40	6.55	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.10		1.95	31.95	*Sqm*
		4		0.59	1.95	4.62	*Sqm*
	TOTAL					**245.38**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*41.58*	*0.0025*	*0.104*	*7850.00*	*816.031*	*Kg*
	TOTAL					*816.031*	*Kg*
	TOTAL					**0.82**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.43*	*0.70*		*6.60*	*Cum*
	D/S Transitions Walls	*1*	*9.43*	*0.70*		*6.60*	*Cum*
	Above Hume Pipe	*1*	*16.78*		*1.70*	*28.53*	*Cum*
	TOTAL					**41.73**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 2.164 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.74*	*0.76*		*5.89*	*Cum*
		1	*5.85*	*9.07*		*53.01*	*Cum*
	Middle Portion	*1*	*1.83*	*27.01*		*49.43*	*Cum*
	Right Portion	*1*	*7.74*	*0.76*		*5.89*	*Cum*
		1	*5.85*	*9.07*		*53.01*	*Cum*
	TOTAL					**167.22**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.37*		*4.65*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.32*	*2.50*	*0.20*	*4.32*	*Cum*
	Pipe Section	*4*	*0.30*	*1.73*	*1.94*	*4.03*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**37.25**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.62*	*2.04*	*10.69*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.62*	*2.04*	*10.63*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.188*		*-2.00*	*Cum*
	TOTAL					**47.25**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	300 mm Thick Right Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.32		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.73	1.94	26.85	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.34*		*0.30*	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.34*		*1.53*	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.24		0.40	6.79	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.24		2.04	34.55	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
		2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.34		1.53	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
		2	9.34		0.30	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.04	34.35	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	TOTAL					**262.75**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.25*	*0.0025*	*0.118*	*7850.00*	*927.208*	*Kg*
	TOTAL					*927.208*	*Kg*
	TOTAL					**0.93**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	D/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	Above Hume Pipe	*1*	*17.32*		*1.83*	*31.70*	*Cum*
	TOTAL					**46.54**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF RAMPUR MR.						
	Cross Drainage at Ch. 0.457 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.74*	*0.76*		*5.91*	*Cum*
		1	*5.85*	*8.76*		*51.22*	*Cum*
	Middle Portion	*1*	*1.83*	*24.80*		*45.38*	*Cum*
	Right Portion	*1*	*7.74*	*0.76*		*5.91*	*Cum*
		1	*5.85*	*8.76*		*51.22*	*Cum*
	TOTAL					**159.64**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.07*	*Cum*
		1	*5.85*	*3.62*	*0.30*	*6.34*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.37*		*4.65*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.32*	*2.50*	*0.20*	*4.32*	*Cum*
	Pipe Section	*4*	*0.30*	*1.73*	*1.94*	*4.03*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**37.25**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.62*	*2.04*	*10.69*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.62*	*2.04*	*10.63*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.188*		*-2.00*	*Cum*
	TOTAL					**47.25**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	300 mm Thick Right Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.85		0.30	3.51	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.32		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.73	1.94	26.85	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.34*		*0.30*	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.34*		*1.53*	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.24		0.40	6.79	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.24		2.04	34.55	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
		2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.34		1.53	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
		2	9.34		0.30	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.04	34.35	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	TOTAL					**262.75**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.25*	*0.0025*	*0.118*	*7850.00*	*927.208*	*Kg*
	TOTAL					*927.208*	*Kg*
	TOTAL					**0.93**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	D/S Transitions Walls	*1*	*9.64*	*0.77*		*7.42*	*Cum*
	Above Hume Pipe	*1*	*17.57*		*1.83*	*32.15*	*Cum*
	TOTAL					**47.00**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF GULAB BIGHA MR						
	Cross Drainage at Ch. 0.152 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*7.49*	*0.76*		*5.72*	*Cum*
		1	*5.55*	*8.83*		*49.00*	*Cum*
	Middle Portion	*1*	*1.83*	*26.65*		*48.77*	*Cum*
	Right Portion	*1*	*7.49*	*0.76*		*5.72*	*Cum*
		1	*5.55*	*8.83*		*49.00*	*Cum*
	TOTAL					**158.21**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.43*	*1.06*	*0.30*	*3.00*	*Cum*
		1	*5.55*	*3.62*	*0.30*	*6.02*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.43*	*1.06*	*0.30*	*3.00*	*Cum*
		1	*5.55*	*3.62*	*0.30*	*6.02*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		1	*15.00*	*0.37*		*5.58*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.32*	*2.50*	*0.20*	*4.32*	*Cum*
	Pipe Section	*5*	*0.30*	*1.73*	*1.94*	*5.03*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.19*		*-1.78*	*Cum*
	TOTAL					**39.43**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.62*	*2.04*	*10.69*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.34*	*0.30*	*0.30*	*0.84*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.71*	*2.54*	*4.19*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.62*	*2.04*	*10.63*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*1.188*		*-2.00*	*Cum*
	TOTAL					**47.25**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.43*		*0.30*	5.66	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.55		0.30	3.33	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	300 mm Thick Right Abutment	2	*9.43*		*0.30*	5.66	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	5.55		0.30	3.33	*Sqm*
		2		3.62	0.30	2.17	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.32		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		1.73	1.94	33.56	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.34*		*0.30*	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.34*		*1.53*	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.24		0.40	6.79	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.24		2.04	34.55	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	2.33		2.54	11.84	*Sqm*
		2		0.71	2.54	3.60	*Sqm*
		2	2.33		0.50	2.33	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	9.34		1.53	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
		2	9.34		0.30	5.61	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.04	34.35	*Sqm*
		4		0.62	2.04	5.04	*Sqm*
	TOTAL					**270.02**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.25*	*0.0025*	*0.118*	*7850.00*	*927.208*	*Kg*
	TOTAL					*927.208*	*Kg*
	TOTAL					**0.93**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.43*	*0.77*		*7.26*	*Cum*
	D/S Transitions Walls	*1*	*9.43*	*0.77*		*7.26*	*Cum*
	Above Hume Pipe	*1*	*17.13*		*1.83*	*31.35*	*Cum*
	TOTAL					**45.88**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 0.457 KM						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.58*	*0.80*		*7.61*	*Cum*
		1	*7.60*	*11.14*		*84.70*	*Cum*
	Middle Portion	*1*	*3.66*	*24.27*		*88.83*	*Cum*
	Right Portion	*1*	*9.60*	*0.80*		*7.63*	*Cum*
		1	*7.64*	*11.14*		*85.11*	*Cum*
	TOTAL					**273.88**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Left Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*7.73*	*3.66*	*0.30*	*8.48*	*Cum*
		1	*7.73*	*0.75*		*5.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Pipe Section	*3*	*0.30*	*3.56*	*1.60*	*5.13*	*Cum*
	Deduct Area of Pipe	*3*	*0.30*	*2.38*		*-2.14*	*Cum*
	TOTAL					**47.77**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.55*	*1.66*	*10.28*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.71*	*2.23*	*12.82*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.62*	*0.30*	*0.20*	*0.70*	*Cum*
		1	*11.62*	*0.72*	*1.78*	*14.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.79*	*2.29*	*15.36*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.24*	*2.375*		*-5.91*	*Cum*
	TOTAL					**71.60**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	6	0.30		1.60	2.88	*Sqm*
		6		3.56	1.60	34.18	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.66*	37.42	*Sqm*
		2		0.55	1.66	1.83	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.06		0.20	3.25	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
		4	4.06		2.23	36.17	*Sqm*
		4		0.71	2.23	6.31	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.16		2.80	23.32	*Sqm*
		2		0.87	2.80	4.88	*Sqm*
		2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	11.62		1.78	41.35	*Sqm*
		2		0.72	1.78	2.55	*Sqm*
		2	11.62		0.20	4.65	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.29	38.70	*Sqm*
		4		0.79	2.29	7.27	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**328.69**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*8*	*2.50*			*20.00*	*RM*
	TOTAL					**20.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*71.60*	*0.0025*	*0.179*	*7850.00*	*1405.244*	*Kg*
	TOTAL					*1405.244*	*Kg*
	TOTAL					**1.41**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*11.55*	*0.77*		*8.90*	*Cum*
	D/S Transitions Walls	*1*	*11.55*	*0.77*		*8.90*	*Cum*
	Above Hume Pipe	*1*	*14.90*		*3.66*	*54.53*	*Cum*
	TOTAL					**72.32**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 1.128 KM						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.58*	*0.79*		*7.60*	*Cum*
		1	*7.60*	*9.07*		*68.94*	*Cum*
	Middle Portion	*1*	*3.66*	*19.46*		*71.22*	*Cum*
	Right Portion	*1*	*9.60*	*0.79*		*7.62*	*Cum*
		1	*7.64*	*9.07*		*69.28*	*Cum*
	TOTAL					**224.66**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Left Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*7.73*	*3.66*	*0.30*	*8.48*	*Cum*
		1	*7.73*	*0.75*		*5.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Pipe Section	*3*	*0.30*	*3.56*	*1.60*	*5.13*	*Cum*
	Deduct Area of Pipe	*3*	*0.30*	*2.38*		*-2.14*	*Cum*
	TOTAL					**47.77**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.55*	*1.66*	*10.28*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.71*	*2.23*	*12.82*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.62*	*0.30*	*0.20*	*0.70*	*Cum*
		1	*11.62*	*0.72*	*1.78*	*14.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.79*	*2.29*	*15.36*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.24*	*2.375*		*-5.91*	*Cum*
	TOTAL					**71.60**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	300 mm Thick Left Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	6	0.30		1.60	2.88	*Sqm*
		6		3.56	1.60	34.18	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.66*	37.42	*Sqm*
		2		0.55	1.66	1.83	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.06		0.20	3.25	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
		4	4.06		2.23	36.17	*Sqm*
		4		0.71	2.23	6.31	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.16		2.80	23.32	*Sqm*
		2		0.87	2.80	4.88	*Sqm*
		2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	11.62		1.78	41.35	*Sqm*
		2		0.72	1.78	2.55	*Sqm*
		2	11.62		0.20	4.65	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.29	38.70	*Sqm*
		4		0.79	2.29	7.27	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**328.69**	***Sqm***
5	Providing 1000 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1000 mm dia pipe	*8*	*2.50*			*20.00*	*RM*
	TOTAL					**20.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*71.60*	*0.0025*	*0.179*	*7850.00*	*1405.244*	*Kg*
	TOTAL					*1405.244*	*Kg*
	TOTAL					**1.41**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*11.55*	*0.77*		*8.90*	*Cum*
	D/S Transitions Walls	*1*	*11.55*	*0.77*		*8.90*	*Cum*
	Above Hume Pipe	*1*	*14.90*		*3.66*	*54.53*	*Cum*
	TOTAL					**72.32**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 6.340 KM						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.48*	*0.77*		*8.84*	*Cum*
	D/S Transitions Walls	*1*	*11.48*	*0.77*		*8.84*	*Cum*
	Above Hume Pipe	*1*	*20.29*		*0.30*	*6.09*	*Cum*
	TOTAL					**23.76**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.48*	*1.06*	*0.30*	*3.64*	*Cum*
		1	*7.57*	*3.69*	*0.30*	*8.37*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.48*	*1.06*	*0.30*	*3.64*	*Cum*
		1	*7.57*	*3.69*	*0.30*	*8.37*	*Cum*
	Below Pipe Section	*1*	*15.00*	*3.66*	*0.30*	*16.47*	*Cum*
		1	*15.00*	*0.75*		*11.18*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.16*	*2.50*	*0.20*	*6.16*	*Cum*
	Pipe Section Collar	*5*	*0.30*	*3.56*	*1.60*	*8.54*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**62.81**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.18*	*0.30*	*0.30*	*1.01*	*Cum*
		1	*11.18*	*0.53*	*1.53*	*9.06*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.72*	*2.97*	*8.88*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.30*	*0.40*	*0.97*	*Cum*
		2	*4.05*	*0.62*	*2.25*	*11.37*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.18*	*0.30*	*0.30*	*1.01*	*Cum*
		1	*11.18*	*0.53*	*1.53*	*9.06*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.72*	*2.97*	*8.88*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.30*	*0.40*	*0.97*	*Cum*
		2	*4.05*	*0.62*	*2.25*	*11.37*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.86*	*2.375*		*-4.10*	*Cum*
	TOTAL					**59.72**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*11.48*		*0.30*	6.89	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
		2	7.57		0.30	4.54	*Sqm*
		2		3.69	0.30	2.21	*Sqm*
	300 mm Thick Right Abutment	2	*11.48*		*0.30*	6.89	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.57		0.30	4.54	*Sqm*
		2		3.69	0.30	2.21	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.16		0.20	4.93	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.60	4.80	*Sqm*
		10		3.56	1.60	56.96	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.18*		*0.30*	6.71	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*11.18*		*1.53*	34.20	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.97	24.71	*Sqm*
		2		0.72	2.97	4.27	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.05		0.40	3.24	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.05		2.25	36.45	*Sqm*
		4		0.62	2.25	5.62	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.97	49.42	*Sqm*
		4		0.72	2.97	8.54	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	11.18		1.53	68.41	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
		4	11.18		0.30	13.41	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.05		0.40	6.48	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.05		2.25	36.45	*Sqm*
		4		0.62	2.25	5.62	*Sqm*
	TOTAL					**424.72**	***Sqm***
5	Providing 1200 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*59.72*	*0.0025*	*0.149*	*7850.00*	*1171.953*	*Kg*
	TOTAL					*1171.953*	*Kg*
	TOTAL					**1.17**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*11.48*	*6.31*		*72.45*	*Cum*
		1	*7.57*	*1.68*		*12.70*	*Cum*
	Middle Portion	*1*	*3.66*	*32.70*		*119.68*	*Cum*
	Right Portion	*1*	*11.48*	*6.31*		*72.45*	*Cum*
		1	*7.57*	*1.68*		*12.70*	*Cum*
	TOTAL					**289.98**	**Cum**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
	Cross Drainage at Ch. 6.740 KM						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.48*	*0.77*		*8.84*	*Cum*
	D/S Transitions Walls	*1*	*11.48*	*0.77*		*8.84*	*Cum*
	Above Hume Pipe	*1*	*20.29*		*0.30*	*6.09*	*Cum*
	TOTAL					**23.76**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.48*	*1.06*	*0.30*	*3.64*	*Cum*
		1	*7.57*	*3.73*	*0.30*	*8.46*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.48*	*1.06*	*0.30*	*3.64*	*Cum*
		1	*7.57*	*3.73*	*0.30*	*8.46*	*Cum*
	Below Pipe Section	*1*	*15.00*	*3.66*	*0.30*	*16.47*	*Cum*
		1	*15.00*	*0.75*		*11.18*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.16*	*2.50*	*0.20*	*6.16*	*Cum*
	Pipe Section Collar	*5*	*0.30*	*3.56*	*1.60*	*8.54*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**62.99**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.18*	*0.30*	*0.30*	*1.01*	*Cum*
		1	*11.18*	*0.53*	*1.53*	*9.06*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.72*	*2.97*	*8.88*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.09*	*0.30*	*0.40*	*0.98*	*Cum*
		2	*4.09*	*0.62*	*2.25*	*11.47*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.18*	*0.30*	*0.30*	*1.01*	*Cum*
		1	*11.18*	*0.53*	*1.53*	*9.06*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.72*	*2.97*	*8.88*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.09*	*0.30*	*0.40*	*0.98*	*Cum*
		2	*4.09*	*0.62*	*2.25*	*11.47*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.86*	*2.375*		*-4.10*	*Cum*
	TOTAL					**59.94**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*11.48*		*0.30*	6.89	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
		2	7.57		0.30	4.54	*Sqm*
		2		3.73	0.30	2.24	*Sqm*
	300 mm Thick Right Abutment	2	*11.48*		*0.30*	6.89	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.57		0.30	4.54	*Sqm*
		2		3.73	0.30	2.24	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.16		0.20	4.93	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.60	4.80	*Sqm*
		10		3.56	1.60	56.96	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.18*		*0.30*	6.71	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*11.18*		*1.53*	34.20	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.97	24.71	*Sqm*
		2		0.72	2.97	4.27	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.09		0.40	3.27	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.09		2.25	36.77	*Sqm*
		4		0.62	2.25	5.62	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.97	49.42	*Sqm*
		4		0.72	2.97	8.54	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	11.18		1.53	68.41	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
		4	11.18		0.30	13.41	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.09		0.40	6.54	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.09		2.25	36.77	*Sqm*
		4		0.62	2.25	5.62	*Sqm*
	TOTAL					**425.50**	***Sqm***
5	Providing 1200 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*59.94*	*0.0025*	*0.150*	*7850.00*	*1176.259*	*Kg*
	TOTAL					*1176.259*	*Kg*
	TOTAL					**1.18**	**M.T.**

S. No.	Item of Works	No.		Width	Height	Qty.	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*11.48*	*6.72*		*77.08*	*Cum*
		1	*7.57*	*2.09*		*15.79*	*Cum*
	Middle Portion	*1*	*3.66*	*38.35*		*140.36*	*Cum*
	Right Portion	*1*	*11.48*	*6.72*		*77.08*	*Cum*
		1	*7.57*	*2.47*		*18.68*	*Cum*
	TOTAL					**329.00**	**Cum**

Slab Bridge
(Total Cost – Rs ₹ 4,65,82,004.01)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF SLAB BRIDGE FOR PATHARA MINOR AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.951								
S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	113.304	Cum	**195.20**	22116.90			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.68	Cum	**6381.70**	55411.59	2.81	3.91	7.81
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	36.43	Cum	**6914.20**	251855.80	15.03	15.66	31.33
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.32	Cum	**8151.40**	190076.19	13.22	9.09	18.42
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.63	MT	**73574.90**	193135.88			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	171.24	Sqm	**578.60**	99077.35			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	Rm	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	53.78	Cum	**149.30**	8028.85			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.665	Cum	**1075.00**	30814.38			
	Coarse Aggregates (100 Km lead)	57.562	Cum	**1398.00**	80472.03			
	Cement (30 km lead)	31.060	MT	**742.00**	23046.79			
	Steel (30 Km lead)	2.63	MT	**742.00**	1947.77			
TOTAL (In Rs.)					**1357922.74**			
TOTAL (In Rs.)					**1357922.74**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.66	Cum	**584.64**	16758.43	1675.84		
	Coarse Aggregate	57.56	Cum	**944.26**	54353.73	5435.37		
	Total					7111.22		
	For 1 no, Total Seigniorage charges					**7111.22**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.926								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	113.304	Cum	**195.20**	22116.90			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.68	Cum	**6381.70**	55411.59	2.81	3.91	7.81
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.86	Cum	**6914.20**	241029.82	14.38	14.99	29.98
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.32	Cum	**8151.40**	190076.19	13.22	9.09	18.42
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.59	MT	**73574.90**	190875.07			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	170.60	Sqm	**578.60**	98707.04			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	53.83	Cum	**149.30**	8036.16			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.991	Cum	**1075.00**	30090.60			
	Coarse Aggregates (100 Km lead)	56.216	Cum	**1398.00**	78589.55			
	Cement (30 km lead)	30.414	MT	**742.00**	22567.55			
	Steel (30 Km lead)	2.59	MT	**742.00**	1924.97			
TOTAL (In Rs.)					**1341600.74**			
TOTAL (In Rs.)					**1341600.74**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.99	Cum	**584.64**	16364.81	1636.48		
	Coarse Aggregate	56.22	Cum	**944.26**	53082.24	5308.22		
	Total					6944.70		
	For 1 nos., Total Seigniorage charges					**6944.70**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.810								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	80.000	Cum	**195.20**	15616.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	0.84	Cum	**6381.70**	5360.63	0.27	0.38	0.76
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.51	Cum	**8151.40**	101993.37	7.09	4.88	9.88
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.15	MT	**73574.90**	84727.01			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	59.78	Sqm	**578.60**	34589.55			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.00	Cum	**149.30**	5225.50			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.258	Cum	**1075.00**	5652.16			
	Coarse Aggregates (100 Km lead)	10.641	Cum	**1398.00**	14875.81			
	Cement (30 km lead)	7.367	MT	**742.00**	5466.07			
	Steel (30 Km lead)	1.15	MT	**742.00**	854.47			
TOTAL (In Rs.)					**676417.83**			
TOTAL (In Rs.)					**676417.83**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.26	Cum	**584.64**	3073.94	307.39		
	Coarse Aggregate	10.64	Cum	**944.26**	10047.66	1004.77		
	Total					1312.16		
	For 1 nos., Total Seigniorage charges					**1312.16**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR DABUR MR.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.884								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	132.836	Cum	**195.20**	25929.50			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.79	Cum	**6381.70**	56097.33	2.85	3.96	7.91
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	36.93	Cum	**6914.20**	255365.53	15.24	15.88	31.76
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.64	Cum	**8151.40**	192713.11	13.40	9.22	18.68
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.60	MT	**73574.90**	191292.32			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	175.45	Sqm	**578.60**	101517.33			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	60.52	Cum	**149.30**	9035.04			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	29.057	Cum	**1075.00**	31236.62			
	Coarse Aggregates (100 Km lead)	58.351	Cum	**1398.00**	81574.79			
	Cement (30 km lead)	31.488	MT	**742.00**	23364.09			
	Steel (30 Km lead)	2.60	MT	**742.00**	1929.18			
TOTAL (In Rs.)					**1372466.22**			
TOTAL (In Rs.)					**1372466.22**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	29.06	Cum	**584.64**	16988.07	1698.81		
	Coarse Aggregate	58.35	Cum	**944.26**	55098.58	5509.86		
	Total					7208.67		
	For 1 nos., Total Seigniorage charges					**7208.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.682							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	60.000	Sqm	**11.80**	708.26			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.000	Cum	**195.20**	13664.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.10	Cum	**8151.40**	106765.69	7.43	5.11	10.35
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	81123.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	61.47	Sqm	**578.60**	35565.56			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.00	Cum	**149.30**	4479.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.864	Cum	**1075.00**	6303.97			
	Coarse Aggregates (100 Km lead)	11.859	Cum	**1398.00**	16579.29			
	Cement (30 km lead)	7.971	MT	**742.00**	5914.33			
	Steel (30 Km lead)	1.10	MT	**742.00**	818.13			
	TOTAL (In Rs.)				**683756.22**			
	TOTAL (In Rs.)				**683756.22**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.86	Cum	**584.64**	3428.42	342.84		
	Coarse Aggregate	11.86	Cum	**944.26**	11198.25	1119.83		
	Total					1462.67		
	For 1 nos., Total Seigniorage charges					**1462.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.078							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	75.000	Sqm	**11.80**	885.33			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.000	Cum	**195.20**	13664.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.10	Cum	**8151.40**	106765.69	7.43	5.11	10.35
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	81123.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	34.69	Sqm	**578.60**	20073.54			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.00	Cum	**149.30**	5225.50			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.864	Cum	**1075.00**	6303.97			
	Coarse Aggregates (100 Km lead)	11.859	Cum	**1398.00**	16579.29			
	Cement (30 km lead)	7.971	MT	**742.00**	5914.33			
	Steel (30 Km lead)	1.10	MT	**742.00**	818.13			
	TOTAL (In Rs.)				**669187.77**			
	TOTAL (In Rs.)				**669187.77**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.86	Cum	**584.64**	3428.42	342.84		
	Coarse Aggregate	11.86	Cum	**944.26**	11198.25	1119.83		
	Total					1462.67		
	For 1 nos., Total Seigniorage charges					**1462.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.475							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	60.000	Sqm	**11.80**	708.26			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	80.000	Cum	**195.20**	15616.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.10	Cum	**8151.40**	106765.69	7.43	5.11	10.35
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	81123.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	34.69	Sqm	**578.60**	20073.54			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.00	Cum	**149.30**	5225.50			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.864	Cum	**1075.00**	6303.97			
	Coarse Aggregates (100 Km lead)	11.859	Cum	**1398.00**	16579.29			
	Cement (30 km lead)	7.971	MT	**742.00**	5914.33			
	Steel (30 Km lead)	1.10	MT	**742.00**	818.13			
	TOTAL (In Rs.)				**670962.71**			
	TOTAL (In Rs.)				**670962.71**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.86	Cum	**584.64**	3428.42	342.84		
	Coarse Aggregate	11.86	Cum	**944.26**	11198.25	1119.83		
	Total					1462.67		
	For 1 nos., Total Seigniorage charges					**1462.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR SADOPUR MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.366								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	121.445	Cum	**195.20**	23706.04			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.63	Cum	**6381.70**	55074.33	2.80	3.88	7.77
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.75	Cum	**6914.20**	233342.12	13.92	14.51	29.02
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.91	Cum	**8151.40**	194870.60	13.55	9.32	18.89
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.56	MT	**73574.90**	188020.20			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	171.73	Sqm	**578.60**	99363.73			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	54.34	Cum	**149.30**	8113.27			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.719	Cum	**1075.00**	29797.67			
	Coarse Aggregates (100 Km lead)	55.677	Cum	**1398.00**	77835.86			
	Cement (30 km lead)	30.272	MT	**742.00**	22461.98			
	Steel (30 Km lead)	2.56	MT	**742.00**	1896.18			
TOTAL (In Rs.)					**1336893.35**			
TOTAL (In Rs.)					**1336893.35**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.72	Cum	**584.64**	16205.49	1620.55		
	Coarse Aggregate	55.68	Cum	**944.26**	52573.17	5257.32		
	Total					6877.87		
	For 1 nos., Total Seigniorage charges					**6877.87**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.930							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	112.104	Cum	**195.20**	21882.74			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.58	Cum	**6381.70**	54728.57	2.78	3.86	7.72
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.40	Cum	**6914.20**	224003.35	13.36	13.93	27.86
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.29	Cum	**8151.40**	189828.69	13.20	9.08	18.40
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.49	MT	**73574.90**	183429.14			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	166.77	Sqm	**578.60**	96490.32			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	69.29	Cum	**149.30**	10345.42			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.872	Cum	**1075.00**	28887.79			
	Coarse Aggregates (100 Km lead)	53.978	Cum	**1398.00**	75460.69			
	Cement (30 km lead)	29.347	MT	**742.00**	21775.32			
	Steel (30 Km lead)	2.49	MT	**742.00**	1849.88			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	TOTAL (In Rs.)				**1311093.29**			
	TOTAL (In Rs.)				**1311093.29**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.87	Cum	**584.64**	15710.66	1571.07		
	Coarse Aggregate	53.98	Cum	**944.26**	50968.89	5096.89		
	Total					6667.96		
	For 1 nos., Total Seigniorage charges					**6667.96**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.844							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	80.000	Cum	**195.20**	15616.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.54	Cum	**8151.40**	102211.00	7.11	4.89	9.91
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.08	MT	**73574.90**	79617.76			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	33.80	Sqm	**578.60**	19558.94			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.00	Cum	**149.30**	5225.50			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.646	Cum	**1075.00**	6069.71			
	Coarse Aggregates (100 Km lead)	11.418	Cum	**1398.00**	15962.18			
	Cement (30 km lead)	7.654	MT	**742.00**	5679.25			
	Steel (30 Km lead)	1.08	MT	**742.00**	802.94			
	TOTAL (In Rs.)				**663403.75**			
	TOTAL (In Rs.)				**663403.75**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.65	Cum	**584.64**	3301.02	330.10		
	Coarse Aggregate	11.42	Cum	**944.26**	10781.44	1078.14		
	Total					1408.25		
	For 1 nos., Total Seigniorage charges					**1408.25**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR DHARAMPUR SUB DY.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.300								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	97.853	Cum	**195.20**	19100.97			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.60	Cum	**6381.70**	54904.27	2.79	3.87	7.74
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.92	Cum	**6914.20**	220728.48	13.17	13.73	27.45
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	39.33	Cum	**8151.40**	320574.37	22.30	15.34	31.07
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.43	MT	**73574.90**	252141.15			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	239.07	Sqm	**578.60**	138325.03			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	67.51	Cum	**149.30**	10079.11			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	32.937	Cum	**1075.00**	35406.79			
	Coarse Aggregates (100 Km lead)	66.266	Cum	**1398.00**	92640.40			
	Cement (30 km lead)	38.255	MT	**742.00**	28385.08			
	Steel (30 Km lead)	3.43	MT	**742.00**	2542.83			
TOTAL (In Rs.)					**1595749.67**			
TOTAL (In Rs.)					**1595749.67**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	32.94	Cum	**584.64**	19256.03	1925.60		
	Coarse Aggregate	66.27	Cum	**944.26**	62572.69	6257.27		
	Total					8182.87		
	For 1 nos., Total Seigniorage charges					**8182.87**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.200							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	141.955	Cum	**195.20**	27709.55			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.83	Cum	**6381.70**	56338.22	2.86	3.97	7.95
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	38.35	Cum	**6914.20**	265151.90	15.82	16.49	32.98
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.15	Cum	**8151.40**	237607.34	16.53	11.37	23.03
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.03	MT	**73574.90**	222566.99			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	196.36	Sqm	**578.60**	113613.60			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	66.23	Cum	**149.30**	9887.90			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.831	Cum	**1075.00**	34218.19			
	Coarse Aggregates (100 Km lead)	63.953	Cum	**1398.00**	89406.64			
	Cement (30 km lead)	35.207	MT	**742.00**	26123.49			
	Steel (30 Km lead)	3.03	MT	**742.00**	2244.58			
	TOTAL (In Rs.)				**1487161.75**			
	TOTAL (In Rs.)				**1487161.75**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.83	Cum	**584.64**	18609.60	1860.96		
	Coarse Aggregate	63.95	Cum	**944.26**	60388.50	6038.85		
	Total					7899.81		
	For 1 nos., Total Seigniorage charges					**7899.81**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.500							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	102.480	Cum	**195.20**	20004.07			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.83	Cum	**6381.70**	56338.22	2.86	3.97	7.95
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	38.35	Cum	**6914.20**	265151.90	15.82	16.49	32.98
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.15	Cum	**8151.40**	237607.34	16.53	11.37	23.03
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.03	MT	**73574.90**	222566.99			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	196.36	Sqm	**578.60**	113613.60			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	48.53	Cum	**149.30**	7245.02			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.831	Cum	**1075.00**	34218.19			
	Coarse Aggregates (100 Km lead)	63.953	Cum	**1398.00**	89406.64			
	Cement (30 km lead)	35.207	MT	**742.00**	26123.49			
	Steel (30 Km lead)	3.03	MT	**742.00**	2244.58			
	TOTAL (In Rs.)				**1476813.40**			
	TOTAL (In Rs.)				**1476813.40**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.83	Cum	**584.64**	18609.60	1860.96		
	Coarse Aggregate	63.95	Cum	**944.26**	60388.50	6038.85		
	Total					7899.81		
	For 1 nos., Total Seigniorage charges					**7899.81**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 8.600							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	67.256	Cum	**195.20**	13128.38			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.64	Cum	**6381.70**	55145.93	2.80	3.89	7.78
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.88	Cum	**6914.20**	227329.90	13.56	14.14	28.28
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.35	Cum	**8151.40**	214797.55	14.94	10.28	20.82
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.81	MT	**73574.90**	206702.94			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.79	Sqm	**578.60**	105183.43			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	62.83	Cum	**149.30**	9381.24			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.303	Cum	**1075.00**	30426.05			
	Coarse Aggregates (100 Km lead)	56.870	Cum	**1398.00**	79504.41			
	Cement (30 km lead)	31.303	MT	**742.00**	23227.01			
	Steel (30 Km lead)	2.81	MT	**742.00**	2084.59			
	TOTAL (In Rs.)				**1368850.66**			
	TOTAL (In Rs.)				**1368850.66**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.30	Cum	**584.64**	16547.24	1654.72		
	Coarse Aggregate	56.87	Cum	**944.26**	53700.17	5370.02		
	Total					7024.74		
	For 1 nos., Total Seigniorage charges					**7024.74**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR ANTI MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.317								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	147.630	Cum	**195.20**	28817.41			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.93	Cum	**6381.70**	56962.23	2.89	4.02	8.03
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	39.45	Cum	**6914.20**	272740.77	16.27	16.96	33.92
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.25	Cum	**8151.40**	246599.32	17.15	11.80	23.90
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.09	MT	**73574.90**	227363.48			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	202.05	Sqm	**578.60**	116907.08			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	69.77	Cum	**149.30**	10416.69			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	32.777	Cum	**1075.00**	35235.33			
	Coarse Aggregates (100 Km lead)	65.857	Cum	**1398.00**	92067.57			
	Cement (30 km lead)	36.317	MT	**742.00**	26947.03			
	Steel (30 Km lead)	3.09	MT	**742.00**	2292.95			
TOTAL (In Rs.)					**1518761.27**			
TOTAL (In Rs.)					**1518761.27**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	32.78	Cum	**584.64**	19162.78	1916.28		
	Coarse Aggregate	65.86	Cum	**944.26**	62185.79	6218.58		
	Total					8134.86		
	For 1 nos., Total Seigniorage charges					**8134.86**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.600							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	173.540	Cum	**195.20**	33875.01			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.20	Cum	**6381.70**	58738.44	2.98	4.14	8.28
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.19	Cum	**6914.20**	312479.77	18.64	19.43	38.87
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.25	Cum	**8151.40**	246599.32	17.15	11.80	23.90
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.20	MT	**73574.90**	235662.26			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	211.73	Sqm	**578.60**	122509.69			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	85.15	Cum	**149.30**	12713.01			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	35.374	Cum	**1075.00**	38026.73			
	Coarse Aggregates (100 Km lead)	71.050	Cum	**1398.00**	99327.81			
	Cement (30 km lead)	38.778	MT	**742.00**	28773.09			
	Steel (30 Km lead)	3.20	MT	**742.00**	2376.64			
	TOTAL (In Rs.)				**1593257.10**			
	TOTAL (In Rs.)				**1593257.10**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	35.37	Cum	**584.64**	20680.88	2068.09		
	Coarse Aggregate	71.05	Cum	**944.26**	67089.61	6708.96		
	Total					8777.05		
	For 1 nos., Total Seigniorage charges					**8777.05**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.332							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	141.955	Cum	**195.20**	27709.55			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.83	Cum	**6381.70**	56338.22	2.86	3.97	7.95
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	38.35	Cum	**6914.20**	265151.90	15.82	16.49	32.98
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.15	Cum	**8151.40**	237607.34	16.53	11.37	23.03
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.03	MT	**73574.90**	222566.99			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	196.36	Sqm	**578.60**	113613.60			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	66.23	Cum	**149.30**	9887.90			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.831	Cum	**1075.00**	34218.19			
	Coarse Aggregates (100 Km lead)	63.953	Cum	**1398.00**	89406.64			
	Cement (30 km lead)	35.207	MT	**742.00**	26123.49			
	Steel (30 Km lead)	3.03	MT	**742.00**	2244.58			
	TOTAL (In Rs.)				**1487397.84**			
	TOTAL (In Rs.)				**1487397.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.83	Cum	**584.64**	18609.60	1860.96		
	Coarse Aggregate	63.95	Cum	**944.26**	60388.50	6038.85		
	Total					7899.81		
	For 1 nos., Total Seigniorage charges					**7899.81**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.719							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	159.650	Cum	**195.20**	31163.59			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.06	Cum	**6381.70**	57808.52	2.93	4.08	8.15
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.93	Cum	**6914.20**	289916.71	17.30	18.03	36.06
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.50	Cum	**8151.40**	224135.09	15.59	10.72	21.72
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.01	MT	**73574.90**	221778.07			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	199.19	Sqm	**578.60**	115250.53			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	77.70	Cum	**149.30**	11600.66			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	32.830	Cum	**1075.00**	35292.39			
	Coarse Aggregates (100 Km lead)	65.935	Cum	**1398.00**	92177.43			
	Cement (30 km lead)	35.822	MT	**742.00**	26579.82			
	Steel (30 Km lead)	3.01	MT	**742.00**	2236.62			
	TOTAL (In Rs.)				**1509996.68**			
	TOTAL (In Rs.)				**1509996.68**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	32.83	Cum	**584.64**	19193.80	1919.38		
	Coarse Aggregate	65.94	Cum	**944.26**	62259.99	6226.00		
	Total					8145.38		
	For 1 nos., Total Seigniorage charges					**8145.38**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.669							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	128.887	Cum	**195.20**	25158.71			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.90	Cum	**6381.70**	56811.55	2.88	4.01	8.01
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.63	Cum	**6914.20**	239424.21	14.28	14.89	29.78
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	25.58	Cum	**8151.40**	208475.23	14.50	9.97	20.20
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.68	MT	**73574.90**	196970.03			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	179.16	Sqm	**578.60**	103660.70			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	2.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	56.06	Cum	**149.30**	8370.14			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.870	Cum	**1075.00**	31035.70			
	Coarse Aggregates (100 Km lead)	57.997	Cum	**1398.00**	81079.22			
	Cement (30 km lead)	31.670	MT	**742.00**	23498.83			
	Steel (30 Km lead)	2.68	MT	**742.00**	1986.44			
	TOTAL (In Rs.)				**1378764.11**			
	TOTAL (In Rs.)				**1378764.11**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.87	Cum	**584.64**	16878.80	1687.88		
	Coarse Aggregate	58.00	Cum	**944.26**	54763.85	5476.39		
	Total					7164.27		
	For 1 nos., Total Seigniorage charges					**7164.27**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.163							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	55.850	Cum	**195.20**	10901.92			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	12.80	Cum	**8151.40**	104368.49	7.26	4.99	10.11
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	80941.32			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	34.23	Sqm	**578.60**	19802.70			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	32.00	Cum	**149.30**	4777.60			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.749	Cum	**1075.00**	6180.67			
	Coarse Aggregates (100 Km lead)	11.627	Cum	**1398.00**	16254.49			
	Cement (30 km lead)	7.804	MT	**742.00**	5790.60			
	Steel (30 Km lead)	1.10	MT	**742.00**	816.29			
	TOTAL (In Rs.)				**662612.60**			
	TOTAL (In Rs.)				**662612.60**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.75	Cum	**584.64**	3361.37	336.14		
	Coarse Aggregate	11.63	Cum	**944.26**	10978.88	1097.89		
	Total					1434.02		
	For 1 nos., Total Seigniorage charges					**1434.02**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR RAMPUR MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.762								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	117.165	Cum	**195.20**	22870.53			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.60	Cum	**6381.70**	54887.09	2.79	3.87	7.74
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.06	Cum	**6914.20**	214771.12	12.81	13.36	26.71
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.42	Cum	**8151.40**	190906.60	13.28	9.13	18.50
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.57	MT	**73574.90**	188777.76			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	169.70	Sqm	**578.60**	98188.36			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	51.35	Cum	**149.30**	7666.41			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.361	Cum	**1075.00**	28338.02			
	Coarse Aggregates (100 Km lead)	52.956	Cum	**1398.00**	74032.64			
	Cement (30 km lead)	28.879	MT	**742.00**	21428.24			
	Steel (30 Km lead)	2.57	MT	**742.00**	1903.82			
TOTAL (In Rs.)					**1306418.07**			
TOTAL (In Rs.)					**1306418.07**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.36	Cum	**584.64**	15411.67	1541.17		
	Coarse Aggregate	52.96	Cum	**944.26**	50004.33	5000.43		
	Total					6541.60		
	For 1 nos., Total Seigniorage charges					**6541.60**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.499							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	60.000	Sqm	**11.80**	708.26			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.000	Cum	**195.20**	13664.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.76	Cum	**6381.70**	30376.89	1.54	2.14	4.28
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.85	Cum	**8151.40**	251507.04	17.49	12.03	24.38
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.97	MT	**73574.90**	145232.98			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	54.75	Sqm	**578.60**	31678.23			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	2.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	3.40	Sqm	**66.00**	224.40			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.00	Cum	**149.30**	5972.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	14.175	Cum	**1075.00**	15238.38			
	Coarse Aggregates (100 Km lead)	28.659	Cum	**1398.00**	40065.31			
	Cement (30 km lead)	19.037	MT	**742.00**	14125.24			
	Steel (30 Km lead)	1.97	MT	**742.00**	1464.67			
	TOTAL (In Rs.)				**1191548.99**			
	TOTAL (In Rs.)				**1191548.99**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	14.18	Cum	**584.64**	8287.41	828.74		
	Coarse Aggregate	28.66	Cum	**944.26**	27061.57	2706.16		
	Total					3534.90		
	For 1 nos., Total Seigniorage charges					**3534.90**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR GULAB BIGHA MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.183								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	112.104	Cum	**195.20**	21882.74			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.58	Cum	**6381.70**	54728.57	2.78	3.86	7.72
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.40	Cum	**6914.20**	224003.35	13.36	13.93	27.86
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.29	Cum	**8151.40**	189828.69	13.20	9.08	18.40
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.49	MT	**73574.90**	183429.14			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	166.77	Sqm	**578.60**	96490.32			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	69.29	Cum	**149.30**	10345.42			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.872	Cum	**1075.00**	28887.79			
	Coarse Aggregates (100 Km lead)	53.978	Cum	**1398.00**	75460.69			
	Cement (30 km lead)	29.347	MT	**742.00**	21775.32			
	Steel (30 Km lead)	2.49	MT	**742.00**	1849.88			
TOTAL (In Rs.)					**1311093.29**			
TOTAL (In Rs.)					**1311093.29**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.87	Cum	**584.64**	15710.66	1571.07		
	Coarse Aggregate	53.98	Cum	**944.26**	50968.89	5096.89		
	Total					6667.96		
	For 1 nos., Total Seigniorage charges					**6667.96**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.823							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	60.000	Sqm	**11.80**	708.26			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.000	Cum	**195.20**	13664.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.10	Cum	**8151.40**	106765.69	7.43	5.11	10.35
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	81123.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	34.69	Sqm	**578.60**	20073.54			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.00	Cum	**149.30**	4479.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.864	Cum	**1075.00**	6303.97			
	Coarse Aggregates (100 Km lead)	11.859	Cum	**1398.00**	16579.29			
	Cement (30 km lead)	7.971	MT	**742.00**	5914.33			
	Steel (30 Km lead)	1.10	MT	**742.00**	818.13			
	TOTAL (In Rs.)				**668264.21**			
	TOTAL (In Rs.)				**668264.21**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.86	Cum	**584.64**	3428.42	342.84		
	Coarse Aggregate	11.86	Cum	**944.26**	11198.25	1119.83		
	Total					1462.67		
	For 1 nos., Total Seigniorage charges					**1462.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.975							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	110.000	Cum	**195.20**	21472.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.10	Cum	**8151.40**	106765.69	7.43	5.11	10.35
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	81123.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	34.69	Sqm	**578.60**	20073.54			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.00	Cum	**149.30**	4479.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.864	Cum	**1075.00**	6303.97			
	Coarse Aggregates (100 Km lead)	11.859	Cum	**1398.00**	16579.29			
	Cement (30 km lead)	7.971	MT	**742.00**	5914.33			
	Steel (30 Km lead)	1.10	MT	**742.00**	818.13			
	TOTAL (In Rs.)				**676308.30**			
	TOTAL (In Rs.)				**676308.30**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.86	Cum	**584.64**	3428.42	342.84		
	Coarse Aggregate	11.86	Cum	**944.26**	11198.25	1119.83		
	Total					1462.67		
	For 1 nos., Total Seigniorage charges					**1462.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.240							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.542	Cum	**195.20**	12989.04			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.97	Cum	**6381.70**	63630.78	3.23	4.49	8.97
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.30	Cum	**6914.20**	320133.46	19.10	19.91	39.82
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.05	Cum	**8151.40**	285737.91	19.88	13.67	27.69
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.47	MT	**73574.90**	255248.49			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	226.67	Sqm	**578.60**	131148.66			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	38.31	Cum	**149.30**	5720.12			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	38.067	Cum	**1075.00**	40922.28			
	Coarse Aggregates (100 Km lead)	76.485	Cum	**1398.00**	106926.06			
	Cement (30 km lead)	42.205	MT	**742.00**	31316.25			
	Steel (30 Km lead)	3.47	MT	**742.00**	2574.17			
	TOTAL (In Rs.)				**1751189.60**			
	TOTAL (In Rs.)				**1751189.60**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	38.07	Cum	**584.64**	22255.63	2225.56		
	Coarse Aggregate	76.49	Cum	**944.26**	72221.75	7222.17		
	Total					9447.74		
	For 1 nos., Total Seigniorage charges					**9447.74**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 9.860							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	81.667	Cum	**195.20**	15941.31			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.75	Cum	**6381.70**	68596.38	3.48	4.84	9.67
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	50.45	Cum	**6914.20**	348816.92	20.81	21.69	43.39
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.45	Cum	**8151.40**	272661.34	18.97	13.05	26.43
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.53	MT	**73574.90**	259555.02			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	228.54	Sqm	**578.60**	132235.05			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	80.48	Cum	**149.30**	12015.77			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	39.576	Cum	**1075.00**	42543.76			
	Coarse Aggregates (100 Km lead)	79.486	Cum	**1398.00**	111120.98			
	Cement (30 km lead)	43.259	MT	**742.00**	32098.14			
	Steel (30 Km lead)	3.53	MT	**742.00**	2617.60			
	TOTAL (In Rs.)				**1792926.62**			
	TOTAL (In Rs.)				**1792926.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	39.58	Cum	**584.64**	23137.47	2313.75		
	Coarse Aggregate	79.49	Cum	**944.26**	75055.15	7505.52		
	Total					9819.26		
	For 1 nos., Total Seigniorage charges					**9819.26**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.975							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	57.871	Cum	**195.20**	11296.43			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.76	Cum	**6381.70**	55900.88	2.84	3.94	7.88
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.83	Cum	**6914.20**	247759.48	14.78	15.41	30.82
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.43	Cum	**8151.40**	215429.72	14.98	10.31	20.88
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.74	MT	**73574.90**	201663.60			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	183.04	Sqm	**578.60**	105908.45			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.59	Cum	**149.30**	4418.22			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	29.657	Cum	**1075.00**	31881.61			
	Coarse Aggregates (100 Km lead)	59.579	Cum	**1398.00**	83291.32			
	Cement (30 km lead)	32.604	MT	**742.00**	24192.45			
	Steel (30 Km lead)	2.74	MT	**742.00**	2033.77			
	TOTAL (In Rs.)				**1386069.28**			
	TOTAL (In Rs.)				**1386069.28**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	29.66	Cum	**584.64**	17338.85	1733.89		
	Coarse Aggregate	59.58	Cum	**944.26**	56257.98	5625.80		
	Total					7359.68		
	For 1 nos., Total Seigniorage charges					**7359.68**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.125							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	63.554	Cum	**195.20**	12405.76			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.51	Cum	**6381.70**	60704.01	3.08	4.28	8.56
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.40	Cum	**6914.20**	313930.99	18.73	19.52	39.05
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	24.24	Cum	**8151.40**	197555.47	13.74	9.45	19.15
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.84	MT	**73574.90**	209233.81			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	193.29	Sqm	**578.60**	111835.08			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	41.20	Cum	**149.30**	6151.70			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	33.256	Cum	**1075.00**	35750.28			
	Coarse Aggregates (100 Km lead)	66.755	Cum	**1398.00**	93322.81			
	Cement (30 km lead)	35.553	MT	**742.00**	26380.11			
	Steel (30 Km lead)	2.84	MT	**742.00**	2110.11			
	TOTAL (In Rs.)				**1472027.60**			
	TOTAL (In Rs.)				**1472027.60**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	33.26	Cum	**584.64**	19442.83	1944.28		
	Coarse Aggregate	66.75	Cum	**944.26**	63033.62	6303.36		
	Total					8247.64		
	For 1 nos., Total Seigniorage charges					**8247.64**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.550							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	60.000	Sqm	**11.80**	708.26			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.000	Cum	**195.20**	13664.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.27	Cum	**8151.40**	108204.01	7.53	5.18	10.49
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.12	MT	**73574.90**	82660.00			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	34.97	Sqm	**578.60**	20236.05			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.00	Cum	**149.30**	4479.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.933	Cum	**1075.00**	6377.94			
	Coarse Aggregates (100 Km lead)	11.999	Cum	**1398.00**	16774.16			
	Cement (30 km lead)	8.071	MT	**742.00**	5988.56			
	Steel (30 Km lead)	1.12	MT	**742.00**	833.62			
	TOTAL (In Rs.)				**671759.79**			
	TOTAL (In Rs.)				**671759.79**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.93	Cum	**584.64**	3468.65	346.87		
	Coarse Aggregate	12.00	Cum	**944.26**	11329.88	1132.99		
	Total					1479.85		
	For 1 nos., Total Seigniorage charges					**1479.85**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR MALHAD SUB DY.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.280								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	81.737	Cum	**195.20**	15955.07			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.43	Cum	**6381.70**	66590.74	3.38	4.70	9.39
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.56	Cum	**6914.20**	315030.64	18.79	19.59	39.18
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.31	Cum	**8151.40**	287866.66	20.02	13.77	27.90
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.47	MT	**73574.90**	255328.48			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	226.42	Sqm	**578.60**	131008.26			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	65.52	Cum	**149.30**	9781.44			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	38.060	Cum	**1075.00**	40915.00			
	Coarse Aggregates (100 Km lead)	76.474	Cum	**1398.00**	106910.75			
	Cement (30 km lead)	42.199	MT	**742.00**	31311.73			
	Steel (30 Km lead)	3.47	MT	**742.00**	2574.98			
TOTAL (In Rs.)					**1758234.17**			
TOTAL (In Rs.)					**1758234.17**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	38.06	Cum	**584.64**	22251.67	2225.17		
	Coarse Aggregate	76.47	Cum	**944.26**	72211.41	7221.14		
	Total					9446.31		
	For 1 nos., Total Seigniorage charges					**9446.31**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.390							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	65.782	Cum	**195.20**	12840.68			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.29	Cum	**6381.70**	65699.35	3.34	4.63	9.27
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.01	Cum	**6914.20**	283562.40	16.92	17.63	35.27
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.67	Cum	**8151.40**	274485.98	19.09	13.13	26.60
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.29	MT	**73574.90**	241707.49			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	213.49	Sqm	**578.60**	123526.20			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	56.51	Cum	**149.30**	8437.30			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	35.400	Cum	**1075.00**	38055.40			
	Coarse Aggregates (100 Km lead)	71.137	Cum	**1398.00**	99450.21			
	Cement (30 km lead)	39.346	MT	**742.00**	29194.52			
	Steel (30 Km lead)	3.29	MT	**742.00**	2437.61			
	TOTAL (In Rs.)				**1674357.55**			
	TOTAL (In Rs.)				**1674357.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	35.40	Cum	**584.64**	20696.48	2069.65		
	Coarse Aggregate	71.14	Cum	**944.26**	67172.28	6717.23		
	Total					8786.88		
	For 1 nos., Total Seigniorage charges					**8786.88**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.950							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	70.753	Cum	**195.20**	13810.93			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.54	Cum	**6381.70**	54507.40	2.77	3.84	7.69
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.02	Cum	**6914.20**	186794.19	11.14	11.62	23.23
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.01	Cum	**8151.40**	220187.27	15.32	10.53	21.34
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.62	MT	**73574.90**	192634.66			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	176.41	Sqm	**578.60**	102071.34			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	52.08	Cum	**149.30**	7775.82			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.995	Cum	**1075.00**	27944.83			
	Coarse Aggregates (100 Km lead)	52.261	Cum	**1398.00**	73060.18			
	Cement (30 km lead)	29.227	MT	**742.00**	21686.71			
	Steel (30 Km lead)	2.62	MT	**742.00**	1942.71			
	TOTAL (In Rs.)				**1397376.46**			
	TOTAL (In Rs.)				**1397376.46**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.00	Cum	**584.64**	15197.83	1519.78		
	Coarse Aggregate	52.26	Cum	**944.26**	49347.50	4934.75		
	Total					6454.53		
	For 1 nos., Total Seigniorage charges					**6454.53**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR RAMPUR MR. 2								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.036								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	61.805	Cum	**195.20**	12064.37			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.70	Cum	**6381.70**	55534.19	2.82	3.92	7.83
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.20	Cum	**6914.20**	243413.84	14.52	15.14	30.28
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.97	Cum	**8151.40**	219828.77	15.29	10.52	21.30
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.76	MT	**73574.90**	203144.40			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	183.75	Sqm	**578.60**	106315.88			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	49.12	Cum	**149.30**	7333.30			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	29.572	Cum	**1075.00**	31789.54			
	Coarse Aggregates (100 Km lead)	59.413	Cum	**1398.00**	83059.39			
	Cement (30 km lead)	32.632	MT	**742.00**	24213.31			
	Steel (30 Km lead)	2.76	MT	**742.00**	2048.70			
TOTAL (In Rs.)					**1391157.08**			
TOTAL (In Rs.)					**1391157.08**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	29.57	Cum	**584.64**	17288.78	1728.88		
	Coarse Aggregate	59.41	Cum	**944.26**	56101.33	5610.13		
	Total					7339.01		
	For 1 nos., Total Seigniorage charges					**7339.01**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.810							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	57.252	Cum	**195.20**	11175.49			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.66	Cum	**6381.70**	55296.92	2.81	3.90	7.80
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.49	Cum	**6914.20**	238438.03	14.23	14.83	29.66
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	25.50	Cum	**8151.40**	207874.84	14.46	9.95	20.15
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.66	MT	**73574.90**	195781.32			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	177.49	Sqm	**578.60**	102694.58			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	47.57	Cum	**149.30**	7102.83			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.674	Cum	**1075.00**	30824.07			
	Coarse Aggregates (100 Km lead)	57.602	Cum	**1398.00**	80527.77			
	Cement (30 km lead)	31.492	MT	**742.00**	23367.13			
	Steel (30 Km lead)	2.66	MT	**742.00**	1974.45			
	TOTAL (In Rs.)				**1357468.84**			
	TOTAL (In Rs.)				**1357468.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.67	Cum	**584.64**	16763.71	1676.37		
	Coarse Aggregate	57.60	Cum	**944.26**	54391.39	5439.14		
	Total					7115.51		
	For 1 nos., Total Seigniorage charges					**7115.51**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR MARUKA MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.600								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	88.325	Cum	**195.20**	17241.14			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.50	Cum	**6381.70**	79791.93	4.05	5.63	11.25
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	43.65	Cum	**6914.20**	301796.31	18.01	18.77	37.54
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.48	Cum	**8151.40**	289189.83	20.12	13.84	28.03
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.43	MT	**73574.90**	252483.09			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	223.66	Sqm	**578.60**	129411.13			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	69.24	Cum	**149.30**	10338.12			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	38.232	Cum	**1075.00**	41098.95			
	Coarse Aggregates (100 Km lead)	76.818	Cum	**1398.00**	107391.48			
	Cement (30 km lead)	42.172	MT	**742.00**	31291.48			
	Steel (30 Km lead)	3.43	MT	**742.00**	2546.28			
TOTAL (In Rs.)					**1905500.54**			
TOTAL (In Rs.)					**1905500.54**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	38.23	Cum	**584.64**	22351.71	2235.17		
	Coarse Aggregate	76.82	Cum	**944.26**	72536.11	7253.61		
	Total					9488.78		
	For 1 nos., Total Seigniorage charges					**9488.78**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR MARUKA MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.250								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	68.897	Cum	**195.20**	13448.63			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.56	Cum	**6381.70**	54657.15	2.77	3.85	7.71
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.60	Cum	**6914.20**	225405.41	13.45	14.02	28.04
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	24.87	Cum	**8151.40**	202709.22	14.10	9.70	19.65
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.58	MT	**73574.90**	190177.47			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	172.06	Sqm	**578.60**	99551.64			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	50.04	Cum	**149.30**	7470.41			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.571	Cum	**1075.00**	29638.59			
	Coarse Aggregates (100 Km lead)	55.390	Cum	**1398.00**	77435.57			
	Cement (30 km lead)	30.323	MT	**742.00**	22499.50			
	Steel (30 Km lead)	2.58	MT	**742.00**	1917.93			
TOTAL (In Rs.)					**1326968.78**			
TOTAL (In Rs.)					**1326968.78**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.57	Cum	**584.64**	16118.98	1611.90		
	Coarse Aggregate	55.39	Cum	**944.26**	52302.80	5230.28		
	Total					6842.18		
	For 1 nos., Total Seigniorage charges					**6842.18**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.000							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	110.000	Cum	**195.20**	21472.00			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	4.76	Cum	**6381.70**	30376.89	1.54	2.14	4.28
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	30.19	Cum	**8151.40**	246123.78	17.12	11.78	23.85
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.74	MT	**73574.90**	127790.22			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	54.05	Sqm	**578.60**	31273.01			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	50.00	Cum	**149.30**	7465.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	13.918	Cum	**1075.00**	14961.51			
	Coarse Aggregates (100 Km lead)	28.137	Cum	**1398.00**	39335.94			
	Cement (30 km lead)	18.662	MT	**742.00**	13847.40			
	Steel (30 Km lead)	1.74	MT	**742.00**	1288.76			
	TOTAL (In Rs.)				**1177091.41**			
	TOTAL (In Rs.)				**1177091.41**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	13.92	Cum	**584.64**	8136.83	813.68		
	Coarse Aggregate	28.14	Cum	**944.26**	26568.93	2656.89		
	Total					3470.58		
	For 1 nos., Total Seigniorage charges					**3470.58**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES FOR PATHRA MINOR							
BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.951							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.17*	*1.86*	*2.11*	*17.02*	*Cum*
		1	*5.19*	*2.04*	*2.11*	*22.39*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.06*	*2.11*	*16.39*	*Cum*
	Left abutment	*2*	*2.17*	*2.04*	*2.11*	*18.72*	*Cum*
		1	*5.19*	*2.04*	*2.11*	*22.39*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.06*	*2.11*	*16.39*	*Cum*
	TOTAL					**113.30**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.87*	*1.56*	*0.20*	*1.17*	*Cum*
		1	*4.89*	*1.74*	*0.20*	*1.71*	*Cum*
	Left abutment	*2*	*1.87*	*1.56*	*0.20*	*1.17*	*Cum*
		1	*4.89*	*1.74*	*0.20*	*1.71*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.68**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.54*	*0.20*	*1.51*	*Cum*
		1	*4.89*	*1.54*	*0.80*	*6.04*	*Cum*
		1	*4.89*	*0.88*	*0.41*	*1.77*	*Cum*
		1	*4.89*	*0.82*	*0.50*	*2.01*	*Cum*
	Return wall	*2*	*1.77*	*1.36*	*0.20*	*0.96*	*Cum*
		2	*1.77*	*1.16*	*0.80*	*3.28*	*Cum*
		2	*1.77*	*0.58*	*1.19*	*2.43*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*4.89*	*1.54*	*0.20*	*1.51*	*Cum*
		1	*4.89*	*1.54*	*0.80*	*6.04*	*Cum*
		1	*4.89*	*0.88*	*0.41*	*1.77*	*Cum*
		1	*4.89*	*0.82*	*0.50*	*2.01*	*Cum*
	Return wall	*2*	*1.77*	*1.36*	*0.20*	*0.96*	*Cum*
		2	*1.77*	*1.16*	*0.80*	*3.28*	*Cum*
		2	*1.77*	*0.58*	*1.19*	*2.43*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**36.43**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.06	5.25	0.39	*4.22*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.06*	*4.25*	*0.08*	*2.89*	*Cum*
	Parapet	*2*	*9.06*	*0.44*	*0.18*	*1.41*	*Cum*
		2	*9.06*	*0.35*	*0.25*	*1.59*	*Cum*
		2	*9.06*	*0.22*	*0.55*	*2.18*	*Cum*
	TOTAL					**23.32**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.52*		*1.578*	*115.3*	*Kg*
a2	*10*	*11*	*5.59*		*0.616*	*37.9*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.44*		*0.616*	*27.1*	*Kg*
a5	*10*	*8*	*5.55*		*0.616*	*27.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*34*	*2.32*		*0.888*	*70.1*	*Kg*
x2	*16*	*34*	*1.27*		*1.578*	*68.4*	*Kg*
x3	*10*	*24*	*1.960*		*0.616*	*29.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*36.43*	*0.0025*	*0.091*	*7850.00*	*714.86*	*Kg*
	Total Reinforcement Steel (in kg)					*2625.0*	*Kg*
	Total Weight in Metric Tonne					**2.63**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.54*	*0.20*	*0.62*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.54*	*0.80*	*2.47*	*Sqm*
		2	*4.89*		*0.41*	*4.01*	*Sqm*
		2		*0.88*	*0.41*	*0.72*	*Sqm*
		2	*4.89*		*0.50*	*4.89*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.36*	*0.20*	*0.54*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.16*	*0.80*	*1.85*	*Sqm*
		2	*1.77*		*1.19*	*4.21*	*Sqm*
		2		*0.58*	*1.19*	*1.37*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.54*	*0.20*	*0.62*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.54*	*0.80*	*2.47*	*Sqm*
		2	*4.89*		*0.41*	*4.01*	*Sqm*
		2		*0.88*	*0.41*	*0.72*	*Sqm*
		2	*4.89*		*0.50*	*4.89*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.36*	*0.20*	*0.54*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.16*	*0.80*	*1.85*	*Sqm*
		2	*1.77*		*1.19*	*4.21*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.58*	*1.19*	*1.37*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.06*		*0.39*	*1.61*	*Sqm*
		1	*2.06*	5.25		*10.82*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.06*		*0.18*	*6.34*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.06*		*0.25*	*9.06*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.06*		*0.55*	*19.93*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**171.24**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	0.64		*6.27*	*Cum*
	Right and left Return wall	4	2.17	1.69		*14.71*	*Cum*
	Extra slope	*1*	*7.365*	*1.055*	*2.11*	*16.39*	*Cum*
		1	*7.365*	*1.055*	*2.11*	*16.39*	*Cum*
	TOTAL					**53.78**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.926						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.17*	*1.86*	*2.11*	*17.02*	*Cum*
		1	*5.19*	*2.04*	*2.11*	*22.39*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.06*	*2.11*	*16.39*	*Cum*
	Left abutment	*2*	*2.17*	*2.04*	*2.11*	*18.72*	*Cum*
		1	*5.19*	*2.04*	*2.11*	*22.39*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.06*	*2.11*	*16.39*	*Cum*
	TOTAL					**113.30**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.87*	*1.56*	*0.20*	*1.17*	*Cum*
		1	*4.89*	*1.74*	*0.20*	*1.71*	*Cum*
	Left abutment	*2*	*1.87*	*1.56*	*0.20*	*1.17*	*Cum*
		1	*4.89*	*1.74*	*0.20*	*1.71*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.68**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.54*	*0.20*	*1.51*	*Cum*
		1	*4.89*	*1.34*	*0.80*	*5.26*	*Cum*
		1	*4.89*	*0.88*	*0.41*	*1.77*	*Cum*
		1	*4.89*	*0.82*	*0.50*	*2.01*	*Cum*
	Return wall	*2*	*1.77*	*1.36*	*0.20*	*0.96*	*Cum*
		2	*1.77*	*1.16*	*0.80*	*3.28*	*Cum*
		2	*1.77*	*0.58*	*1.19*	*2.43*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*4.89*	*1.54*	*0.20*	*1.51*	*Cum*
		1	*4.89*	*1.34*	*0.80*	*5.26*	*Cum*
		1	*4.89*	*0.88*	*0.41*	*1.77*	*Cum*
		1	*4.89*	*0.82*	*0.50*	*2.01*	*Cum*
	Return wall	*2*	*1.77*	*1.36*	*0.20*	*0.96*	*Cum*
		2	*1.77*	*1.16*	*0.80*	*3.28*	*Cum*
		2	*1.77*	*0.58*	*1.19*	*2.43*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**34.86**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.06	5.25	0.39	*4.22*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.06*	*4.25*	*0.08*	*2.89*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.06*	*0.44*	*0.18*	*1.41*	*Cum*
		2	*9.06*	*0.35*	*0.25*	*1.59*	*Cum*
		2	*9.06*	*0.22*	*0.55*	*2.18*	*Cum*
	TOTAL					**23.32**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.52*		*1.578*	*115.3*	*Kg*
a2	*10*	*11*	*5.59*		*0.616*	*37.9*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.44*		*0.616*	*27.1*	*Kg*
a5	*10*	*8*	*5.55*		*0.616*	*27.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*34*	*2.32*		*0.888*	*70.1*	*Kg*
x2	*16*	*34*	*1.27*		*1.578*	*68.4*	*Kg*
x3	*10*	*24*	*1.960*		*0.616*	*29.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*34.9*	*0.0025*	*0.087*	*7850.00*	*684.13*	*Kg*
	Total Reinforcement Steel (in kg)					*2594.3*	*Kg*
	Total Weight in Metric Tonne					**2.59**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.54*	*0.20*	*0.62*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.34*	*0.80*	*2.15*	*Sqm*
		2	*4.89*		*0.41*	*4.01*	*Sqm*
		2		*0.88*	*0.41*	*0.72*	*Sqm*
		2	*4.89*		*0.50*	*4.89*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.36*	*0.20*	*0.54*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.16*	*0.80*	*1.85*	*Sqm*
		2	*1.77*		*1.19*	*4.21*	*Sqm*
		2		*0.58*	*1.19*	*1.37*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.54*	*0.20*	*0.62*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.34*	*0.80*	*2.15*	*Sqm*
		2	*4.89*		*0.41*	*4.01*	*Sqm*
		2		*0.88*	*0.41*	*0.72*	*Sqm*
		2	*4.89*		*0.50*	*4.89*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.36*	*0.20*	*0.54*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.16*	*0.80*	*1.85*	*Sqm*
		2	*1.77*		*1.19*	*4.21*	*Sqm*
		2		*0.58*	*1.19*	*1.37*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.06*		*0.39*	*1.61*	*Sqm*
		1	*2.06*	5.25		*10.82*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.06*		*0.18*	*6.34*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.06*		*0.25*	*9.06*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.06*		*0.55*	*19.93*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**170.60**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	0.65		*6.32*	*Cum*
	Right and left Return wall	4	2.17	1.69		*14.71*	*Cum*
	Extra slope	*1*	*7.365*	*1.055*	*2.11*	*16.39*	*Cum*
		1	*7.365*	*1.055*	*2.110*	*16.39*	*Cum*
	TOTAL					**53.83**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.810						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**80.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*1.00*	*0.08*	*0.84*	*Cum*
	TOTAL					**0.84**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.00	5.25	0.34	*1.76*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.00*	*4.25*	*0.08*	*1.59*	*Cum*
	Parapet	*2*	*5.00*	*0.44*	*0.18*	*0.78*	*Cum*
		2	*5.00*	*0.35*	*0.25*	*0.88*	*Cum*
		2	*5.00*	*0.22*	*0.55*	*1.20*	*Cum*
	TOTAL					**12.51**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.46*		*1.578*	*66.8*	*Kg*
a2	*10*	*5*	*5.59*		*0.616*	*17.2*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.38*		*0.616*	*15.3*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*6.70*		*0.888*	*154.6*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*6.70*		*0.888*	*154.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*0.90*		*0.616*	*13.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1151.6*	*Kg*
	Total Weight in Metric Tonne					**1.15**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.00*		*0.34*	*0.67*	*Sqm*
		1	*1.00*	5.25		*5.25*	*Sqm*
		2		*5.25*	0.34	*3.52*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		2	*2.00*	5.25		*21.00*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.00*		*0.18*	*3.50*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.00*		*0.25*	*5.00*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.00*		*0.55*	*11.00*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**59.78**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**35.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR DABUR MR.						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.884						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.21*	*1.77*	*2.34*	*18.25*	*Cum*
		1	*5.28*	*2.11*	*2.34*	*26.02*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*1.17*	*2.34*	*20.40*	*Cum*
	Left abutment	*2*	*2.21*	*2.11*	*2.34*	*21.74*	*Cum*
		1	*5.28*	*2.11*	*2.34*	*26.02*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*1.17*	*2.34*	*20.40*	*Cum*
	TOTAL					**132.84**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.91*	*1.47*	*0.20*	*1.12*	*Cum*
		1	*4.98*	*1.81*	*0.20*	*1.80*	*Cum*
	Left abutment	*2*	*1.91*	*1.47*	*0.20*	*1.12*	*Cum*
		1	*4.98*	*1.81*	*0.20*	*1.80*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.79**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.98*	*1.61*	*0.20*	*1.60*	*Cum*
		1	*4.98*	*1.41*	*0.80*	*5.62*	*Cum*
		1	*4.98*	*0.92*	*0.64*	*2.89*	*Cum*
		1	*4.98*	*0.82*	*0.50*	*2.04*	*Cum*
	Return wall	*2*	*1.81*	*1.27*	*0.20*	*0.92*	*Cum*
		2	*1.81*	*1.07*	*0.80*	*3.10*	*Cum*
		2	*1.81*	*0.64*	*0.91*	*2.08*	*Cum*
		2	*1.81*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.98*	*1.61*	*0.20*	*1.60*	*Cum*
		1	*4.98*	*1.41*	*0.80*	*5.62*	*Cum*
		1	*4.98*	*0.92*	*0.64*	*2.89*	*Cum*
		1	*4.98*	*0.82*	*0.50*	*2.04*	*Cum*
	Return wall	*2*	*1.81*	*1.27*	*0.20*	*0.92*	*Cum*
		2	*1.81*	*1.07*	*0.80*	*3.10*	*Cum*
		2	*1.81*	*0.64*	*0.91*	*2.08*	*Cum*
		2	*1.81*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**36.93**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.17	5.25	0.39	*4.45*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*9.17*	*4.25*	*0.08*	*2.92*	*Cum*
	Parapet	*2*	*9.17*	*0.44*	*0.18*	*1.43*	*Cum*
		2	*9.17*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.17*	*0.22*	*0.55*	*2.21*	*Cum*
	TOTAL					**23.64**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.63*		*1.578*	*120.4*	*Kg*
a2	*10*	*11*	*5.59*		*0.616*	*37.9*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.55*		*0.616*	*28.3*	*Kg*
a5	*10*	*8*	*5.55*		*0.616*	*27.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*36*	*2.32*		*0.888*	*74.2*	*Kg*
x2	*16*	*36*	*1.27*		*1.578*	*72.4*	*Kg*
x3	*10*	*24*	*2.07*		*0.616*	*30.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*36.9*	*0.0025*	*0.092*	*7850.00*	*724.82*	*Kg*
	Total Reinforcement Steel (in kg)					*2600.0*	*Kg*
	Total Weight in Metric Tonne					**2.60**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.98*		*0.20*	*1.99*	*Sqm*
		2		*1.61*	*0.20*	*0.64*	*Sqm*
		2	*4.98*		*0.80*	*7.96*	*Sqm*
		2		*1.41*	*0.80*	*2.26*	*Sqm*
		2	*4.98*		*0.64*	*6.32*	*Sqm*
		2		*0.92*	*0.64*	*1.16*	*Sqm*
		2	*4.98*		*0.50*	*4.98*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.81*		*0.20*	*0.72*	*Sqm*
		2		*1.27*	*0.20*	*0.51*	*Sqm*
		2	*1.81*		*0.80*	*2.89*	*Sqm*
		2		*1.07*	*0.80*	*1.72*	*Sqm*
		2	*1.81*		*0.91*	*3.27*	*Sqm*
		2		*0.64*	*0.91*	*1.15*	*Sqm*
		2	*1.81*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.98*		*0.20*	*1.99*	*Sqm*
		2		*1.61*	*0.20*	*0.64*	*Sqm*
		2	*4.98*		*0.80*	*7.96*	*Sqm*
		2		*1.41*	*0.80*	*2.26*	*Sqm*
		2	*4.98*		*0.64*	*6.32*	*Sqm*
		2		*0.92*	*0.64*	*1.16*	*Sqm*
		2	*4.98*		*0.50*	*4.98*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.81*		*0.20*	*0.72*	*Sqm*
		2		*1.27*	*0.20*	*0.51*	*Sqm*
		2	*1.81*		*0.80*	*2.89*	*Sqm*
		2		*1.07*	*0.80*	*1.72*	*Sqm*
		2	*1.81*		*0.91*	*3.27*	*Sqm*
		2		*0.64*	*0.91*	*1.15*	*Sqm*
		2	*1.81*		*0.15*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.17*		*0.39*	*1.69*	*Sqm*
		1	*2.17*	5.25		*11.39*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.17*		*0.18*	*6.42*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.17*		*0.25*	*9.17*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.17*		*0.55*	*20.17*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**175.45**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			***10.50***	***RM***
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				**2.00**	**Nos**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.98	0.77		*7.65*	*Cum*
	Right and left Return wall	4	2.21	1.37		*12.07*	*Cum*
	Extra slope	*1*	*7.484*	*1.1675*	*2.335*	*20.40*	*Cum*
		1	*7.484*	*1.1675*	*2.335*	*20.40*	*Cum*
	TOTAL					**60.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.682						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*60.00*			**60.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**70.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.10	5.25	0.39	*2.26*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.10*	*4.25*	*0.08*	*1.63*	*Cum*
	Parapet	*2*	*5.10*	*0.44*	*0.18*	*0.79*	*Cum*
		2	*5.10*	*0.35*	*0.25*	*0.90*	*Cum*
		2	*5.10*	*0.22*	*0.55*	*1.23*	*Cum*
	TOTAL					**13.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.52*		*1.578*	*69.6*	*Kg*
a2	*10*	*6*	*5.57*		*0.616*	*20.6*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.48*		*0.616*	*16.4*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*1.00*		*0.616*	*14.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1102.6*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.10*		*0.39*	*0.86*	*Sqm*
		1	*1.10*	5.25		*5.78*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		2	*2.00*	5.25		*21.00*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.10*		*0.18*	*3.57*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.10*		*0.25*	*5.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.10*		*0.55*	*11.22*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**61.47**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**30.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.078						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*75.00*			**75.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**70.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.10	5.25	0.39	*2.26*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.10*	*4.25*	*0.08*	*1.63*	*Cum*
	Parapet	*2*	*5.10*	*0.44*	*0.18*	*0.79*	*Cum*
		2	*5.10*	*0.35*	*0.25*	*0.90*	*Cum*
		2	*5.10*	*0.22*	*0.55*	*1.23*	*Cum*
	TOTAL					**13.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.52*		*1.578*	*69.6*	*Kg*
a2	*10*	*6*	*5.57*		*0.616*	*20.6*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.48*		*0.616*	*16.4*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*1.00*		*0.616*	*14.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1102.6*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.10*		*0.39*	*0.86*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.10*		*0.18*	*3.57*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.10*		*0.25*	*5.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.10*		*0.55*	*11.22*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**34.69**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**35.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.475						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*60.00*			**60.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**80.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.10	5.25	0.39	*2.26*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.10*	*4.25*	*0.08*	*1.63*	*Cum*
	Parapet	*2*	*5.10*	*0.44*	*0.18*	*0.79*	*Cum*
		2	*5.10*	*0.35*	*0.25*	*0.90*	*Cum*
		2	*5.10*	*0.22*	*0.55*	*1.23*	*Cum*
	TOTAL					**13.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.52*		*1.578*	*69.6*	*Kg*
a2	*10*	*6*	*5.57*		*0.616*	*20.6*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.48*		*0.616*	*16.4*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*1.00*		*0.616*	*14.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1102.6*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.10*		*0.39*	*0.86*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.10*		*0.18*	*3.57*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.10*		*0.25*	*5.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.10*		*0.55*	*11.22*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**34.69**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**35.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR SADOPUR MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.366						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.18*	*1.74*	*2.21*	*16.79*	*Cum*
		1	*5.31*	*2.06*	*2.21*	*24.14*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.49*	*1.11*	*2.21*	*18.28*	*Cum*
	Left abutment	*2*	*2.18*	*2.06*	*2.21*	*19.82*	*Cum*
		1	*5.31*	*2.06*	*2.21*	*24.14*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.49*	*1.11*	*2.21*	*18.28*	*Cum*
	TOTAL					**121.44**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.01*	*1.76*	*0.20*	*1.76*	*Cum*
	Left abutment	*2*	*1.88*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.01*	*1.76*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.63**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.01*	*1.56*	*0.20*	*1.56*	*Cum*
		1	*5.01*	*1.36*	*0.80*	*5.44*	*Cum*
		1	*5.01*	*0.89*	*0.46*	*2.05*	*Cum*
		1	*5.01*	*0.82*	*0.55*	*2.26*	*Cum*
	Return wall	*2*	*1.78*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.04*	*0.80*	*2.97*	*Cum*
		2	*1.78*	*0.52*	*0.81*	*1.50*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.01*	*1.56*	*0.20*	*1.56*	*Cum*
		1	*5.01*	*1.36*	*0.80*	*5.44*	*Cum*
		1	*5.01*	*0.89*	*0.46*	*2.05*	*Cum*
		1	*5.01*	*0.82*	*0.55*	*2.26*	*Cum*
	Return wall	*2*	*1.78*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.04*	*0.80*	*2.97*	*Cum*
		2	*1.78*	*0.52*	*0.81*	*1.50*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.75**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.26	5.25	0.39	*4.63*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*9.26*	*4.25*	*0.08*	*2.95*	*Cum*
	Parapet	*2*	*9.26*	*0.44*	*0.18*	*1.44*	*Cum*
		2	*9.26*	*0.35*	*0.25*	*1.63*	*Cum*
		2	*9.26*	*0.22*	*0.55*	*2.23*	*Cum*
	TOTAL					**23.91**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.72*		*1.578*	*124.5*	*Kg*
a2	*10*	*12*	*5.59*		*0.616*	*41.4*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.64*		*0.616*	*29.3*	*Kg*
a5	*10*	*8*	*5.55*		*0.616*	*27.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*38*	*2.32*		*0.888*	*78.3*	*Kg*
x2	*16*	*38*	*1.27*		*1.578*	*76.4*	*Kg*
x3	*10*	*24*	*2.16*		*0.616*	*32.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.7*	*0.0025*	*0.084*	*7850.00*	*662.31*	*Kg*
	Total Reinforcement Steel (in kg)					*2555.5*	*Kg*
	Total Weight in Metric Tonne					**2.56**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.01*		*0.20*	*2.00*	*Sqm*
		2		*1.56*	*0.20*	*0.62*	*Sqm*
		2	*5.01*		*0.80*	*8.01*	*Sqm*
		2		*1.36*	*0.80*	*2.17*	*Sqm*
		2	*5.01*		*0.46*	*4.61*	*Sqm*
		2		*0.89*	*0.46*	*0.82*	*Sqm*
		2	*5.01*		*0.55*	*5.51*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.04*	*0.80*	*1.67*	*Sqm*
		2	*1.78*		*0.81*	*2.88*	*Sqm*
		2		*0.52*	*0.81*	*0.84*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.01*		*0.20*	*2.00*	*Sqm*
		2		*1.56*	*0.20*	*0.62*	*Sqm*
		2	*5.01*		*0.80*	*8.01*	*Sqm*
		2		*1.36*	*0.80*	*2.17*	*Sqm*
		2	*5.01*		*0.46*	*4.61*	*Sqm*
		2		*0.89*	*0.46*	*0.82*	*Sqm*
		2	*5.01*		*0.55*	*5.51*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.04*	*0.80*	*1.67*	*Sqm*
		2	*1.78*		*0.81*	*2.88*	*Sqm*
		2		*0.52*	*0.81*	*0.84*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.26*		*0.39*	*1.77*	*Sqm*
		1	*2.26*	5.25		*11.87*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.26*		*0.18*	*6.48*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.26*		*0.25*	*9.26*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.26*		*0.55*	*20.37*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**171.73**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.01	0.68		*6.79*	*Cum*
	Right and left Return wall	4	2.18	1.26		*10.99*	*Cum*
	Extra slope	*1*	*7.486*	*1.105*	*2.21*	*18.28*	*Cum*
		1	*7.486*	*1.105*	*2.21*	*18.28*	*Cum*
	TOTAL					**54.34**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.930						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.17*	*1.74*	*2.09*	*15.80*	*Cum*
		1	*5.31*	*2.04*	*2.09*	*22.59*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*1.05*	*2.09*	*16.33*	*Cum*
	Left abutment	*2*	*2.17*	*2.04*	*2.09*	*18.46*	*Cum*
		1	*5.31*	*2.04*	*2.09*	*22.59*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*1.05*	*2.09*	*16.33*	*Cum*
	TOTAL					**112.10**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.87*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.01*	*1.74*	*0.20*	*1.74*	*Cum*
	Left abutment	*2*	*1.87*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.01*	*1.74*	*0.20*	*1.74*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.58**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.01*	*1.54*	*0.20*	*1.54*	*Cum*
		1	*5.01*	*1.34*	*0.80*	*5.35*	*Cum*
		1	*5.01*	*0.88*	*0.39*	*1.72*	*Cum*
		1	*5.01*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.77*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.77*	*1.04*	*0.80*	*2.95*	*Cum*
		2	*1.77*	*0.52*	*0.81*	*1.49*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.01*	*1.54*	*0.20*	*1.54*	*Cum*
		1	*5.01*	*1.34*	*0.80*	*5.35*	*Cum*
		1	*5.01*	*0.88*	*0.39*	*1.72*	*Cum*
		1	*5.01*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.77*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.77*	*1.04*	*0.80*	*2.95*	*Cum*
		2	*1.77*	*0.52*	*0.81*	*1.49*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**32.40**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.07	5.25	0.39	*4.18*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.07*	*4.25*	*0.08*	*2.89*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.07*	*0.44*	*0.18*	*1.41*	*Cum*
		2	*9.07*	*0.35*	*0.25*	*1.59*	*Cum*
		2	*9.07*	*0.22*	*0.55*	*2.18*	*Cum*
	TOTAL					**23.29**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.53*		*1.578*	*115.8*	*Kg*
a2	*10*	*10*	*5.59*		*0.616*	*34.5*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.45*		*0.616*	*27.2*	*Kg*
a5	*10*	*7*	*5.55*		*0.616*	*23.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*34*	*2.32*		*0.888*	*70.1*	*Kg*
x2	*16*	*34*	*1.30*		*1.578*	*69.5*	*Kg*
x3	*10*	*24*	*1.97*		*0.616*	*29.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.35*		*0.888*	*242.2*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.4*	*0.0025*	*0.081*	*7850.00*	*635.80*	*Kg*
	Total Reinforcement Steel (in kg)					*2493.1*	*Kg*
	Total Weight in Metric Tonne					**2.49**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.01*		*0.20*	*2.00*	*Sqm*
		2		*1.54*	*0.20*	*0.61*	*Sqm*
		2	*5.01*		*0.80*	*8.01*	*Sqm*
		2		*1.34*	*0.80*	*2.14*	*Sqm*
		2	*5.01*		*0.39*	*3.91*	*Sqm*
		2		*0.88*	*0.39*	*0.69*	*Sqm*
		2	*5.01*		*0.50*	*5.01*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.04*	*0.80*	*1.67*	*Sqm*
		2	*1.77*		*0.81*	*2.86*	*Sqm*
		2		*0.52*	*0.81*	*0.84*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.01*		*0.20*	*2.00*	*Sqm*
		2		*1.54*	*0.20*	*0.61*	*Sqm*
		2	*5.01*		*0.80*	*8.01*	*Sqm*
		2		*1.34*	*0.80*	*2.14*	*Sqm*
		2	*5.01*		*0.39*	*3.91*	*Sqm*
		2		*0.88*	*0.39*	*0.69*	*Sqm*
		2	*5.01*		*0.50*	*5.01*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.04*	*0.80*	*1.67*	*Sqm*
		2	*1.77*		*0.81*	*2.86*	*Sqm*
		2		*0.52*	*0.81*	*0.84*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.07*		*0.39*	*1.59*	*Sqm*
		1	*2.07*	5.25		*10.87*	*Sqm*
		2		*5.25*	0.39	*4.04*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.07*		*0.18*	*6.35*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.07*		*0.25*	*9.07*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.07*		*0.55*	*19.95*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**166.77**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.01	0.65		*6.46*	*Cum*
	Right and left Return wall	4	2.17	1.26		*10.94*	*Cum*
	Below Approach Slab	*1*	*5.01*	*2.597*	*1.48*	*19.24*	*Cum*
	Extra slope	*1*	*7.476*	*1.045*	*2.09*	*16.33*	*Cum*
		1	*7.4755*	*1.045*	*2.09*	*16.33*	*Cum*
	TOTAL					**69.29**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.844						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**80.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	0.91	5.25	0.39	*1.87*	*Cum*
	Approach Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*4.91*	*4.25*	*0.08*	*1.57*	*Cum*
	Parapet	*2*	*4.91*	*0.44*	*0.18*	*0.76*	*Cum*
		2	*4.91*	*0.35*	*0.25*	*0.86*	*Cum*
		2	*4.91*	*0.22*	*0.55*	*1.18*	*Cum*
	TOTAL					**12.54**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.33*		*1.578*	*60.9*	*Kg*
a2	*10*	*5*	*5.57*		*0.616*	*17.2*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.29*		*0.616*	*14.3*	*Kg*
a5	*10*	*3*	*5.55*		*0.616*	*10.3*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*0.81*		*0.616*	*12.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1082.1*	*Kg*
	Total Weight in Metric Tonne					**1.08**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*0.91*		*0.39*	*0.71*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approach Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*4.91*		*0.18*	*3.44*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*4.91*		*0.25*	*4.91*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*4.91*		*0.55*	*10.80*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**33.80**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**35.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR DHARAMPUR SUB DY.						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.300						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.80*	*1.35*	*1.80*	*8.75*	*Cum*
		1	*5.12*	*1.92*	*1.80*	*17.69*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.92*	*0.90*	*1.80*	*22.42*	*Cum*
	Left abutment	*2*	*1.80*	*1.49*	*1.80*	*9.66*	*Cum*
		1	*5.12*	*1.84*	*1.80*	*16.92*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.92*	*0.90*	*1.80*	*22.42*	*Cum*
	TOTAL					**97.85**	**Cum**
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.80*	*1.35*	*0.20*	*0.97*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Left abutment	*2*	*1.80*	*1.35*	*0.20*	*0.97*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Levelling course	*2*	*3.10*	*5.50*	*0.08*	*2.73*	*Cum*
	TOTAL					**8.60**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**31.92**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.10	6.50	0.38	*12.51*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.33*	*14.90*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*12.10*	*5.50*	*0.08*	*4.99*	*Cum*
	Parapet	*2*	*12.10*	*0.44*	*0.18*	*1.88*	*Cum*
		2	*12.10*	*0.35*	*0.25*	*2.12*	*Cum*
		2	*12.10*	*0.22*	*0.55*	*2.91*	*Cum*
	TOTAL					**39.33**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*37*	*5.76*		*2.466*	*525.5*	*Kg*
a2	*12*	*26*	*6.10*		*0.888*	*140.8*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*22*	*5.68*		*0.616*	*77.0*	*Kg*
a5	*10*	*21*	*6.00*		*0.616*	*77.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*84*	*2.45*		*0.888*	*182.8*	*Kg*
x2	*16*	*84*	*1.45*		*1.578*	*191.6*	*Kg*
x3	*10*	*24*	*5.00*		*0.616*	*74.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*31.92*	*0.0025*	*0.080*	*7850.00*	*626.507*	*Kg*
	Total Reinforcement Steel (in kg)					*3427.0*	*Kg*
	Total Weight in Metric Tonne					**3.43**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.10*		*0.38*	*3.85*	*Sqm*
		1	*5.10*	6.50		*33.15*	*Sqm*
		2		*6.50*	0.38	*4.91*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.33*	*4.59*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.33	*8.52*	*Sqm*
	Parapet	*4*	*12.10*		*0.18*	*8.47*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.10*		*0.25*	*12.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.10*		*0.55*	*26.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**239.07**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.12	1.01		*10.34*	*Cum*
	Right and left Return wall	4	1.80	1.71		*12.33*	*Cum*
	Extra slope	*2*	*6.919*	*0.9*	*1.8*	*22.42*	*Cum*
		2	*6.919*	*0.9*	*1.8*	*22.42*	*Cum*
	TOTAL					**67.51**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.200						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.22*	*1.81*	*2.46*	*19.77*	*Cum*
		1	*5.14*	*2.14*	*2.46*	*27.11*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
	Left abutment	*2*	*2.22*	*2.14*	*2.46*	*23.41*	*Cum*
		1	*5.14*	*2.14*	*2.46*	*27.11*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
	TOTAL					**141.95**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*4.84*	*1.84*	*0.20*	*1.78*	*Cum*
	Left abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*4.84*	*1.84*	*0.20*	*1.78*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.83**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.64*	*0.20*	*1.61*	*Cum*
		1	*4.89*	*1.44*	*0.80*	*5.64*	*Cum*
		1	*4.89*	*0.93*	*0.71*	*3.23*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.21*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.55*	*1.03*	*2.08*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.89*	*1.64*	*0.20*	*1.61*	*Cum*
		1	*4.89*	*1.44*	*0.80*	*5.64*	*Cum*
		1	*4.89*	*0.93*	*0.71*	*3.23*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.21*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.55*	*1.03*	*2.08*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**38.35**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.88	5.25	0.41	*8.43*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.88*	*4.25*	*0.08*	*3.47*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.88*	*0.44*	*0.18*	*1.69*	*Cum*
		2	*10.88*	*0.35*	*0.25*	*1.91*	*Cum*
		2	*10.88*	*0.22*	*0.55*	*2.62*	*Cum*
	TOTAL					**29.15**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*38*	*4.44*		*1.578*	*266.3*	*Kg*
a2	*10*	*18*	*5.75*		*0.616*	*63.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*21*	*4.36*		*0.616*	*56.4*	*Kg*
a5	*10*	*15*	*5.65*		*0.616*	*52.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*70*	*2.37*		*0.888*	*147.4*	*Kg*
x2	*16*	*70*	*1.32*		*1.578*	*146.3*	*Kg*
x3	*10*	*24*	*3.78*		*0.616*	*55.9*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*38.3*	*0.0025*	*0.096*	*7850.00*	*752.60*	*Kg*
	Total Reinforcement Steel (in kg)					*3025.0*	*Kg*
	Total Weight in Metric Tonne					**3.03**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.64*	*0.20*	*0.66*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.44*	*0.80*	*2.31*	*Sqm*
		2	*4.89*		*0.71*	*6.95*	*Sqm*
		2		*0.93*	*0.71*	*1.32*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.91*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.75*	*Sqm*
		2		*0.55*	*1.03*	*1.14*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.64*	*0.20*	*0.66*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.44*	*0.80*	*2.31*	*Sqm*
		2	*4.89*		*0.71*	*6.95*	*Sqm*
		2		*0.93*	*0.71*	*1.32*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.91*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.75*	*Sqm*
		2		*0.55*	*1.03*	*1.14*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.88*		*0.41*	*3.21*	*Sqm*
		1	*3.88*	5.25		*20.37*	*Sqm*
		2		*5.25*	0.41	*4.35*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.88*		*0.18*	*7.62*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.88*		*0.25*	*10.88*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.88*		*0.55*	*23.94*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**196.36**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	0.84		*8.25*	*Cum*
	Right and left Return wall	4	2.22	1.51		*13.41*	*Cum*
	Extra slope	*1*	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
		1	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
	TOTAL					**66.23**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.500						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.22*	*1.81*	*1.91*	*15.35*	*Cum*
		1	*5.14*	*2.14*	*1.91*	*21.05*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*0.96*	*1.91*	*13.43*	*Cum*
	Left abutment	*2*	*2.22*	*2.14*	*1.91*	*18.17*	*Cum*
		1	*5.14*	*2.14*	*1.91*	*21.05*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*0.96*	*1.91*	*13.43*	*Cum*
	TOTAL					**102.48**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*4.84*	*1.84*	*0.20*	*1.78*	*Cum*
	Left abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*4.84*	*1.84*	*0.20*	*1.78*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.83**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.64*	*0.20*	*1.61*	*Cum*
		1	*4.89*	*1.44*	*0.80*	*5.64*	*Cum*
		1	*4.89*	*0.93*	*0.71*	*3.23*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.21*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.55*	*1.03*	*2.08*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.89*	*1.64*	*0.20*	*1.61*	*Cum*
		1	*4.89*	*1.44*	*0.80*	*5.64*	*Cum*
		1	*4.89*	*0.93*	*0.71*	*3.23*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.21*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.55*	*1.03*	*2.08*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**38.35**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.88	5.25	0.41	*8.43*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.88*	*4.25*	*0.08*	*3.47*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.88*	*0.44*	*0.18*	*1.69*	*Cum*
		2	*10.88*	*0.35*	*0.25*	*1.91*	*Cum*
		2	*10.88*	*0.22*	*0.55*	*2.62*	*Cum*
	TOTAL					**29.15**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*38*	*4.44*		*1.578*	*266.3*	*Kg*
a2	*10*	*18*	*5.75*		*0.616*	*63.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*21*	*4.36*		*0.616*	*56.4*	*Kg*
a5	*10*	*15*	*5.65*		*0.616*	*52.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*70*	*2.37*		*0.888*	*147.4*	*Kg*
x2	*16*	*70*	*1.32*		*1.578*	*146.3*	*Kg*
x3	*10*	*24*	*3.78*		*0.616*	*55.9*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*38.3*	*0.0025*	*0.096*	*7850.00*	*752.60*	*Kg*
	Total Reinforcement Steel (in kg)					*3025.0*	*Kg*
	Total Weight in Metric Tonne					**3.03**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.64*	*0.20*	*0.66*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.44*	*0.80*	*2.31*	*Sqm*
		2	*4.89*		*0.71*	*6.95*	*Sqm*
		2		*0.93*	*0.71*	*1.32*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.91*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.75*	*Sqm*
		2		*0.55*	*1.03*	*1.14*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.64*	*0.20*	*0.66*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.44*	*0.80*	*2.31*	*Sqm*
		2	*4.89*		*0.71*	*6.95*	*Sqm*
		2		*0.93*	*0.71*	*1.32*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.91*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.75*	*Sqm*
		2		*0.55*	*1.03*	*1.14*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.88*		*0.41*	*3.21*	*Sqm*
		1	*3.88*	5.25		*20.37*	*Sqm*
		2		*5.25*	0.41	*4.35*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.88*		*0.18*	*7.62*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.88*		*0.25*	*10.88*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.88*		*0.55*	*23.94*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**196.36**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	0.84		*8.25*	*Cum*
	Right and left Return wall	4	2.22	1.51		*13.41*	*Cum*
	Extra slope	*1*	*7.37*	*0.96*	*1.91*	*13.43*	*Cum*
		1	*7.37*	*0.96*	*1.91*	*13.43*	*Cum*
	TOTAL					**48.53**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 8.600						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.18*	*1.73*	*1.20*	*9.06*	*Cum*
		1	*5.32*	*2.07*	*1.20*	*13.20*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.51*	*1.73*	*1.20*	*15.56*	*Cum*
	Left abutment	*2*	*2.18*	*2.07*	*1.20*	*10.83*	*Cum*
		1	*5.32*	*2.07*	*1.20*	*13.20*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.51*	*0.60*	*1.20*	*5.40*	*Cum*
	TOTAL					**67.26**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.77*	*Cum*
	Left abutment	*2*	*1.88*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.77*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.64**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.02*	*1.47*	*0.20*	*1.47*	*Cum*
		1	*5.02*	*1.32*	*0.80*	*5.29*	*Cum*
		1	*5.02*	*0.89*	*0.49*	*2.20*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.03*	*0.80*	*2.93*	*Cum*
		2	*1.78*	*0.51*	*0.76*	*1.39*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.02*	*1.47*	*0.20*	*1.47*	*Cum*
		1	*5.02*	*1.32*	*0.80*	*5.29*	*Cum*
		1	*5.02*	*0.89*	*0.49*	*2.20*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.03*	*0.80*	*2.93*	*Cum*
		2	*1.78*	*0.51*	*0.76*	*1.39*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**32.88**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.49	5.25	0.33	*5.98*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.49*	*4.25*	*0.08*	*3.34*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.49*	*0.44*	*0.18*	*1.63*	*Cum*
		2	*10.49*	*0.35*	*0.25*	*1.84*	*Cum*
		2	*10.49*	*0.22*	*0.55*	*2.53*	*Cum*
	TOTAL					**26.35**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.95*		*1.578*	*180.8*	*Kg*
a2	*10*	*18*	*5.65*		*0.616*	*62.7*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.87*		*0.616*	*42.9*	*Kg*
a5	*10*	*12*	*5.55*		*0.616*	*41.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*58*	*2.32*		*0.888*	*119.5*	*Kg*
x2	*16*	*58*	*1.27*		*1.578*	*116.6*	*Kg*
x3	*12*	*24*	*3.39*		*0.888*	*72.2*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.88*	*0.0025*	*0.082*	*7850.00*	*645.244*	*Kg*
	Total Reinforcement Steel (in kg)					*2809.4*	*Kg*
	Total Weight in Metric Tonne					**2.81**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.47*	*0.20*	*0.59*	*Sqm*
		2	*5.02*		*0.80*	*8.04*	*Sqm*
		2		*1.32*	*0.80*	*2.11*	*Sqm*
		2	*5.02*		*0.49*	*4.92*	*Sqm*
		2		*0.89*	*0.49*	*0.88*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.03*	*0.80*	*1.64*	*Sqm*
		2	*1.78*		*0.76*	*2.71*	*Sqm*
		2		*0.51*	*0.76*	*0.78*	*Sqm*
		2	*1.78*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.47*	*0.20*	*0.59*	*Sqm*
		2	*5.02*		*0.80*	*8.04*	*Sqm*
		2		*1.32*	*0.80*	*2.11*	*Sqm*
		2	*5.02*		*0.49*	*4.92*	*Sqm*
		2		*0.89*	*0.49*	*0.88*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.03*	*0.80*	*1.64*	*Sqm*
		2	*1.78*		*0.76*	*2.71*	*Sqm*
		2		*0.51*	*0.76*	*0.78*	*Sqm*
		2	*1.78*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.49*		*0.33*	*2.28*	*Sqm*
		1	*3.49*	5.25		*18.32*	*Sqm*
		2		*5.25*	0.33	*3.43*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.49*		*0.18*	*7.34*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.49*		*0.25*	*10.49*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.49*		*0.55*	*23.08*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**181.79**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.02	0.80		*8.04*	*Cum*
	Right and left Return wall	4	2.18	1.53		*13.36*	*Cum*
	Below Approach slab	2	*5.02*	*2.68*	*0.76*	*20.47*	*Cum*
	Extra slope	1	*7.51*	*1.73*	*1.20*	*15.56*	*Cum*
		1	*7.51*	*0.60*	*1.20*	*5.40*	*Cum*
	TOTAL					**62.83**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR ANTI MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.317						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.22*	*1.82*	*2.51*	*20.35*	*Cum*
		1	*5.23*	*2.15*	*2.51*	*28.18*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.45*	*1.26*	*2.51*	*23.47*	*Cum*
	Left abutment	*2*	*2.22*	*2.15*	*2.51*	*23.98*	*Cum*
		1	*5.23*	*2.15*	*2.51*	*28.18*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.45*	*1.26*	*2.51*	*23.47*	*Cum*
	TOTAL					**147.63**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.52*	*0.20*	*1.17*	*Cum*
		1	*4.93*	*1.85*	*0.20*	*1.82*	*Cum*
	Left abutment	*2*	*1.92*	*1.52*	*0.20*	*1.17*	*Cum*
		1	*4.93*	*1.85*	*0.20*	*1.82*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.93**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.93*	*1.65*	*0.20*	*1.62*	*Cum*
		1	*4.93*	*1.45*	*0.80*	*5.71*	*Cum*
		1	*4.93*	*0.93*	*0.76*	*3.50*	*Cum*
		1	*4.93*	*0.82*	*0.55*	*2.22*	*Cum*
	Return wall	*2*	*1.82*	*1.32*	*0.20*	*0.97*	*Cum*
		2	*1.82*	*1.12*	*0.80*	*3.28*	*Cum*
		2	*1.82*	*0.56*	*1.08*	*2.21*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.93*	*1.65*	*0.20*	*1.62*	*Cum*
		1	*4.93*	*1.45*	*0.80*	*5.71*	*Cum*
		1	*4.93*	*0.93*	*0.76*	*3.50*	*Cum*
		1	*4.93*	*0.82*	*0.55*	*2.22*	*Cum*
	Return wall	*2*	*1.82*	*1.32*	*0.20*	*0.97*	*Cum*
		2	*1.82*	*1.12*	*0.80*	*3.28*	*Cum*
		2	*1.82*	*0.56*	*1.08*	*2.21*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**39.45**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	4.24	5.25	0.41	*9.22*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*11.24*	*4.25*	*0.08*	*3.58*	*Cum*
	Parapet	*2*	*11.24*	*0.44*	*0.18*	*1.75*	*Cum*
		2	*11.24*	*0.35*	*0.25*	*1.97*	*Cum*
		2	*11.24*	*0.22*	*0.55*	*2.71*	*Cum*
	TOTAL					**30.25**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*38*	*4.80*		*1.578*	*287.9*	*Kg*
a2	*10*	*21*	*5.75*		*0.616*	*74.4*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*21*	*4.72*		*0.616*	*61.1*	*Kg*
a5	*10*	*17*	*5.65*		*0.616*	*59.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*70*	*2.37*		*0.888*	*147.4*	*Kg*
x2	*16*	*70*	*1.27*		*1.578*	*140.7*	*Kg*
x3	*10*	*24*	*4.14*		*0.616*	*61.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*39.4*	*0.0025*	*0.099*	*7850.00*	*774.14*	*Kg*
	Total Reinforcement Steel (in kg)					*3090.2*	*Kg*
	Total Weight in Metric Tonne					**3.09**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.93*		*0.20*	*1.97*	*Sqm*
		2		*1.65*	*0.20*	*0.66*	*Sqm*
		2	*4.93*		*0.80*	*7.88*	*Sqm*
		2		*1.45*	*0.80*	*2.32*	*Sqm*
		2	*4.93*		*0.76*	*7.49*	*Sqm*
		2		*0.93*	*0.76*	*1.42*	*Sqm*
		2	*4.93*		*0.55*	*5.42*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.32*	*0.20*	*0.53*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*1.12*	*0.80*	*1.80*	*Sqm*
		2	*1.82*		*1.08*	*3.94*	*Sqm*
		2		*0.56*	*1.08*	*1.21*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.93*		*0.20*	*1.97*	*Sqm*
		2		*1.65*	*0.20*	*0.66*	*Sqm*
		2	*4.93*		*0.80*	*7.88*	*Sqm*
		2		*1.45*	*0.80*	*2.32*	*Sqm*
		2	*4.93*		*0.76*	*7.49*	*Sqm*
		2		*0.93*	*0.76*	*1.42*	*Sqm*
		2	*4.93*		*0.55*	*5.42*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.32*	*0.20*	*0.53*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*1.12*	*0.80*	*1.80*	*Sqm*
		2	*1.82*		*1.08*	*3.94*	*Sqm*
		2		*0.56*	*1.08*	*1.21*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*4.24*		*0.41*	*3.51*	*Sqm*
		1	*4.24*	5.25		*22.26*	*Sqm*
		2		*5.25*	0.41	*4.35*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*11.24*		*0.18*	*7.87*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*11.24*		*0.25*	*11.24*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*11.24*		*0.55*	*24.73*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**202.05**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.93	0.91		*8.93*	*Cum*
	Right and left Return wall	4	2.22	1.56		*13.90*	*Cum*
	Extra slope	*1*	*7.451*	*1.255*	*2.51*	*23.47*	*Cum*
		1	*7.4505*	*1.255*	*2.51*	*23.47*	*Cum*
	TOTAL					**69.77**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.600						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.27*	*1.91*	*2.79*	*24.05*	*Cum*
		1	*5.14*	*2.23*	*2.79*	*31.95*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.41*	*1.39*	*2.79*	*28.73*	*Cum*
	Left abutment	*2*	*2.27*	*2.23*	*2.79*	*28.13*	*Cum*
		1	*5.14*	*2.23*	*2.79*	*31.95*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.41*	*1.39*	*2.79*	*28.73*	*Cum*
	TOTAL					**173.54**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.97*	*1.61*	*0.20*	*1.26*	*Cum*
		1	*4.84*	*1.93*	*0.20*	*1.87*	*Cum*
	Left abutment	*2*	*1.97*	*1.61*	*0.20*	*1.26*	*Cum*
		1	*4.84*	*1.93*	*0.20*	*1.87*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**9.20**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.84*	*1.73*	*0.20*	*1.68*	*Cum*
		1	*4.84*	*1.53*	*0.80*	*5.93*	*Cum*
		1	*4.84*	*0.98*	*1.04*	*4.89*	*Cum*
		1	*4.84*	*0.82*	*0.55*	*2.18*	*Cum*
	Return wall	*2*	*1.87*	*1.41*	*0.20*	*1.05*	*Cum*
		2	*1.87*	*1.21*	*0.80*	*3.60*	*Cum*
		2	*1.87*	*0.60*	*1.36*	*3.05*	*Cum*
		2	*1.87*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.84*	*1.73*	*0.20*	*1.68*	*Cum*
		1	*4.84*	*1.53*	*0.80*	*5.93*	*Cum*
		1	*4.84*	*0.98*	*1.04*	*4.89*	*Cum*
		1	*4.84*	*0.82*	*0.55*	*2.18*	*Cum*
	Return wall	*2*	*1.87*	*1.41*	*0.20*	*1.05*	*Cum*
		2	*1.87*	*1.21*	*0.80*	*3.60*	*Cum*
		2	*1.87*	*0.60*	*1.36*	*3.05*	*Cum*
		2	*1.87*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**45.19**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	4.24	5.25	0.41	*9.22*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*11.24*	*4.25*	*0.08*	*3.58*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*11.24*	*0.44*	*0.18*	*1.75*	*Cum*
		2	*11.24*	*0.35*	*0.25*	*1.97*	*Cum*
		2	*11.24*	*0.22*	*0.55*	*2.71*	*Cum*
	TOTAL					**30.25**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*38*	*4.80*		*1.578*	*287.9*	*Kg*
a2	*10*	*21*	*5.75*		*0.616*	*74.4*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*21*	*4.72*		*0.616*	*61.1*	*Kg*
a5	*10*	*17*	*5.65*		*0.616*	*59.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*70*	*2.37*		*0.888*	*147.4*	*Kg*
x2	*16*	*70*	*1.27*		*1.578*	*140.7*	*Kg*
x3	*10*	*24*	*4.14*		*0.616*	*61.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*45.2*	*0.0025*	*0.113*	*7850.00*	*886.93*	*Kg*
	Total Reinforcement Steel (in kg)					*3203.0*	*Kg*
	Total Weight in Metric Tonne					**3.20**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.84*		*0.20*	*1.94*	*Sqm*
		2		*1.73*	*0.20*	*0.69*	*Sqm*
		2	*4.84*		*0.80*	*7.75*	*Sqm*
		2		*1.53*	*0.80*	*2.45*	*Sqm*
		2	*4.84*		*1.04*	*10.03*	*Sqm*
		2		*0.98*	*1.04*	*2.02*	*Sqm*
		2	*4.84*		*0.55*	*5.33*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.87*		*0.20*	*0.75*	*Sqm*
		2		*1.41*	*0.20*	*0.56*	*Sqm*
		2	*1.87*		*0.80*	*2.98*	*Sqm*
		2		*1.21*	*0.80*	*1.93*	*Sqm*
		2	*1.87*		*1.36*	*5.05*	*Sqm*
		2		*0.60*	*1.36*	*1.63*	*Sqm*
		2	*1.87*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.84*		*0.20*	*1.94*	*Sqm*
		2		*1.73*	*0.20*	*0.69*	*Sqm*
		2	*4.84*		*0.80*	*7.75*	*Sqm*
		2		*1.53*	*0.80*	*2.45*	*Sqm*
		2	*4.84*		*1.04*	*10.03*	*Sqm*
		2		*0.98*	*1.04*	*2.02*	*Sqm*
		2	*4.84*		*0.55*	*5.33*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.87*		*0.20*	*0.75*	*Sqm*
		2		*1.41*	*0.20*	*0.56*	*Sqm*
		2	*1.87*		*0.80*	*2.98*	*Sqm*
		2		*1.21*	*0.80*	*1.93*	*Sqm*
		2	*1.87*		*1.36*	*5.05*	*Sqm*
		2		*0.60*	*1.36*	*1.63*	*Sqm*
		2	*1.87*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*4.24*		*0.41*	*3.51*	*Sqm*
		1	*4.24*	5.25		*22.26*	*Sqm*
		2		*5.25*	0.41	*4.35*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*11.24*		*0.18*	*7.87*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*11.24*		*0.25*	*11.24*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*11.24*		*0.55*	*24.73*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**211.73**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.84	1.08		*10.47*	*Cum*
	Right and left Return wall	4	2.27	1.90		*17.21*	*Cum*
	Extra slope	*1*	*7.409*	*1.3925*	*2.785*	*28.73*	*Cum*
		1	*7.409*	*1.3925*	*2.785*	*28.73*	*Cum*
	TOTAL					**85.15**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.332						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.22*	*1.81*	*2.46*	*19.77*	*Cum*
		1	*5.14*	*2.14*	*2.46*	*27.11*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
	Left abutment	*2*	*2.22*	*2.14*	*2.46*	*23.41*	*Cum*
		1	*5.14*	*2.14*	*2.46*	*27.11*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
	TOTAL					**141.95**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*4.84*	*1.84*	*0.20*	*1.78*	*Cum*
	Left abutment	*2*	*1.92*	*1.51*	*0.20*	*1.16*	*Cum*
		1	*4.84*	*1.84*	*0.20*	*1.78*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.83**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.64*	*0.20*	*1.61*	*Cum*
		1	*4.89*	*1.44*	*0.80*	*5.64*	*Cum*
		1	*4.89*	*0.93*	*0.71*	*3.23*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.21*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.55*	*1.03*	*2.08*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.89*	*1.64*	*0.20*	*1.61*	*Cum*
		1	*4.89*	*1.44*	*0.80*	*5.64*	*Cum*
		1	*4.89*	*0.93*	*0.71*	*3.23*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.21*	*Cum*
	Return wall	*2*	*1.82*	*1.31*	*0.20*	*0.95*	*Cum*
		2	*1.82*	*1.11*	*0.80*	*3.23*	*Cum*
		2	*1.82*	*0.55*	*1.03*	*2.08*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**38.35**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.88	5.25	0.41	*8.43*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.88*	*4.25*	*0.08*	*3.47*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.88*	*0.44*	*0.18*	*1.69*	*Cum*
		2	*10.88*	*0.35*	*0.25*	*1.91*	*Cum*
		2	*10.88*	*0.22*	*0.55*	*2.62*	*Cum*
	TOTAL					**29.15**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*38*	*4.44*		*1.578*	*266.3*	*Kg*
a2	*10*	*18*	*5.75*		*0.616*	*63.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*21*	*4.36*		*0.616*	*56.4*	*Kg*
a5	*10*	*15*	*5.65*		*0.616*	*52.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*70*	*2.37*		*0.888*	*147.4*	*Kg*
x2	*16*	*70*	*1.32*		*1.578*	*146.3*	*Kg*
x3	*10*	*24*	*3.78*		*0.616*	*55.9*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*38.3*	*0.0025*	*0.096*	*7850.00*	*752.60*	*Kg*
	Total Reinforcement Steel (in kg)					*3025.0*	*Kg*
	Total Weight in Metric Tonne					**3.03**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.64*	*0.20*	*0.66*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.44*	*0.80*	*2.31*	*Sqm*
		2	*4.89*		*0.71*	*6.95*	*Sqm*
		2		*0.93*	*0.71*	*1.32*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.91*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.75*	*Sqm*
		2		*0.55*	*1.03*	*1.14*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.96*	*Sqm*
		2		*1.64*	*0.20*	*0.66*	*Sqm*
		2	*4.89*		*0.80*	*7.83*	*Sqm*
		2		*1.44*	*0.80*	*2.31*	*Sqm*
		2	*4.89*		*0.71*	*6.95*	*Sqm*
		2		*0.93*	*0.71*	*1.32*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.31*	*0.20*	*0.52*	*Sqm*
		2	*1.82*		*0.80*	*2.91*	*Sqm*
		2		*1.11*	*0.80*	*1.77*	*Sqm*
		2	*1.82*		*1.03*	*3.75*	*Sqm*
		2		*0.55*	*1.03*	*1.14*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.88*		*0.41*	*3.21*	*Sqm*
		1	*3.88*	5.25		*20.37*	*Sqm*
		2		*5.25*	0.41	*4.35*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.88*		*0.18*	*7.62*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.88*		*0.25*	*10.88*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.88*		*0.55*	*23.94*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**196.36**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	0.84		*8.25*	*Cum*
	Right and left Return wall	4	2.22	1.51		*13.41*	*Cum*
	Extra slope	*1*	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
		1	*7.37*	*1.23*	*2.46*	*22.29*	*Cum*
	TOTAL					**66.23**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.719						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.24*	*1.86*	*2.64*	*22.07*	*Cum*
		1	*5.19*	*2.19*	*2.64*	*29.95*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.43*	*1.32*	*2.64*	*25.89*	*Cum*
	Left abutment	*2*	*2.24*	*2.19*	*2.64*	*25.91*	*Cum*
		1	*5.19*	*2.19*	*2.64*	*29.95*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.43*	*1.32*	*2.64*	*25.89*	*Cum*
	TOTAL					**159.65**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.94*	*1.56*	*0.20*	*1.22*	*Cum*
		1	*4.89*	*1.89*	*0.20*	*1.84*	*Cum*
	Left abutment	*2*	*1.94*	*1.56*	*0.20*	*1.22*	*Cum*
		1	*4.89*	*1.89*	*0.20*	*1.84*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**9.06**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.69*	*0.20*	*1.65*	*Cum*
		1	*4.89*	*1.49*	*0.80*	*5.81*	*Cum*
		1	*4.89*	*0.93*	*0.89*	*4.05*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.20*	*Cum*
	Return wall	*2*	*1.84*	*1.36*	*0.20*	*1.01*	*Cum*
		2	*1.84*	*1.16*	*0.80*	*3.43*	*Cum*
		2	*1.84*	*0.58*	*1.21*	*2.59*	*Cum*
		2	*1.84*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.89*	*1.69*	*0.20*	*1.65*	*Cum*
		1	*4.89*	*1.49*	*0.80*	*5.81*	*Cum*
		1	*4.89*	*0.93*	*0.89*	*4.05*	*Cum*
		1	*4.89*	*0.82*	*0.55*	*2.20*	*Cum*
	Return wall	*2*	*1.84*	*1.36*	*0.20*	*1.01*	*Cum*
		2	*1.84*	*1.16*	*0.80*	*3.43*	*Cum*
		2	*1.84*	*0.58*	*1.21*	*2.59*	*Cum*
		2	*1.84*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**41.93**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.57	5.25	0.38	*7.06*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.57*	*4.25*	*0.08*	*3.37*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.57*	*0.44*	*0.18*	*1.64*	*Cum*
		2	*10.57*	*0.35*	*0.25*	*1.86*	*Cum*
		2	*10.57*	*0.22*	*0.55*	*2.55*	*Cum*
	TOTAL					**27.50**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*38*	*4.13*		*1.578*	*247.7*	*Kg*
a2	*10*	*18*	*5.75*		*0.616*	*63.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*21*	*4.05*		*0.616*	*52.4*	*Kg*
a5	*10*	*14*	*5.65*		*0.616*	*48.8*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*58*	*2.37*		*0.888*	*122.1*	*Kg*
x2	*16*	*58*	*1.32*		*1.578*	*121.2*	*Kg*
x3	*10*	*24*	*3.47*		*0.616*	*51.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*41.9*	*0.0025*	*0.105*	*7850.00*	*822.89*	*Kg*
	Total Reinforcement Steel (in kg)					*3014.3*	*Kg*
	Total Weight in Metric Tonne					**3.01**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.95*	*Sqm*
		2		*1.69*	*0.20*	*0.67*	*Sqm*
		2	*4.89*		*0.80*	*7.82*	*Sqm*
		2		*1.49*	*0.80*	*2.38*	*Sqm*
		2	*4.89*		*0.89*	*8.70*	*Sqm*
		2		*0.93*	*0.89*	*1.66*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.84*		*0.20*	*0.74*	*Sqm*
		2		*1.36*	*0.20*	*0.55*	*Sqm*
		2	*1.84*		*0.80*	*2.95*	*Sqm*
		2		*1.16*	*0.80*	*1.86*	*Sqm*
		2	*1.84*		*1.21*	*4.46*	*Sqm*
		2		*0.58*	*1.21*	*1.41*	*Sqm*
		2	*1.84*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.95*	*Sqm*
		2		*1.69*	*0.20*	*0.67*	*Sqm*
		2	*4.89*		*0.80*	*7.82*	*Sqm*
		2		*1.49*	*0.80*	*2.38*	*Sqm*
		2	*4.89*		*0.89*	*8.70*	*Sqm*
		2		*0.93*	*0.89*	*1.66*	*Sqm*
		2	*4.89*		*0.55*	*5.38*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.84*		*0.20*	*0.74*	*Sqm*
		2		*1.36*	*0.20*	*0.55*	*Sqm*
		2	*1.84*		*0.80*	*2.95*	*Sqm*
		2		*1.16*	*0.80*	*1.86*	*Sqm*
		2	*1.84*		*1.21*	*4.46*	*Sqm*
		2		*0.58*	*1.21*	*1.41*	*Sqm*
		2	*1.84*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.57*		*0.38*	*2.69*	*Sqm*
		1	*3.57*	5.25		*18.74*	*Sqm*
		2		*5.25*	0.38	*3.95*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.57*		*0.18*	*7.40*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.57*		*0.25*	*10.57*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.57*		*0.55*	*23.25*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**199.19**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	1.07		*10.46*	*Cum*
	Right and left Return wall	4	2.24	1.72		*15.45*	*Cum*
	Extra slope	1	*7.43*	*1.32*	*2.64*	*25.89*	*Cum*
		1	*7.43*	*1.32*	*2.64*	*25.89*	*Cum*
	TOTAL					**77.70**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.669						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.19*	*1.75*	*2.25*	*17.23*	*Cum*
		1	*5.30*	*2.19*	*2.25*	*26.08*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.50*	*1.13*	*2.25*	*18.98*	*Cum*
	Left abutment	*2*	*2.19*	*2.19*	*2.25*	*21.56*	*Cum*
		1	*5.30*	*2.19*	*2.25*	*26.08*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.50*	*1.13*	*2.25*	*18.98*	*Cum*
	TOTAL					**128.89**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.45*	*0.20*	*1.09*	*Cum*
		1	*5.00*	*1.89*	*0.20*	*1.89*	*Cum*
	Left abutment	*2*	*1.89*	*1.45*	*0.20*	*1.09*	*Cum*
		1	*5.00*	*1.89*	*0.20*	*1.89*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.90**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.00*	*1.59*	*0.20*	*1.59*	*Cum*
		1	*5.00*	*1.39*	*0.80*	*5.54*	*Cum*
		1	*5.00*	*0.90*	*0.55*	*2.48*	*Cum*
		1	*5.00*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.79*	*1.25*	*0.20*	*0.89*	*Cum*
		2	*1.79*	*1.05*	*0.80*	*3.00*	*Cum*
		2	*1.79*	*0.52*	*0.82*	*1.54*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.00*	*1.59*	*0.20*	*1.59*	*Cum*
		1	*5.00*	*1.39*	*0.80*	*5.54*	*Cum*
		1	*5.00*	*0.90*	*0.55*	*2.48*	*Cum*
		1	*5.00*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.79*	*1.25*	*0.20*	*0.89*	*Cum*
		2	*1.79*	*1.05*	*0.80*	*3.00*	*Cum*
		2	*1.79*	*0.52*	*0.82*	*1.54*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**34.63**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.90	5.25	0.38	*5.73*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.90*	*4.25*	*0.08*	*3.16*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.90*	*0.44*	*0.18*	*1.54*	*Cum*
		2	*9.90*	*0.35*	*0.25*	*1.74*	*Cum*
		2	*9.90*	*0.22*	*0.55*	*2.38*	*Cum*
	TOTAL					**25.58**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.36*		*1.578*	*153.8*	*Kg*
a2	*10*	*15*	*5.65*		*0.616*	*52.2*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.28*		*0.616*	*36.4*	*Kg*
a5	*10*	*10*	*5.55*		*0.616*	*34.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*48*	*2.32*		*0.888*	*98.9*	*Kg*
x2	*16*	*48*	*1.27*		*1.578*	*96.5*	*Kg*
x3	*10*	*24*	*2.80*		*0.616*	*41.4*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*34.6*	*0.0025*	*0.087*	*7850.00*	*679.57*	*Kg*
	Total Reinforcement Steel (in kg)					*2677.1*	*Kg*
	Total Weight in Metric Tonne					**2.68**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.00*		*0.20*	*2.00*	*Sqm*
		2		*1.59*	*0.20*	*0.63*	*Sqm*
		2	*5.00*		*0.80*	*8.01*	*Sqm*
		2		*1.39*	*0.80*	*2.22*	*Sqm*
		2	*5.00*		*0.55*	*5.50*	*Sqm*
		2		*0.90*	*0.55*	*0.99*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.72*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.79*		*0.80*	*2.87*	*Sqm*
		2		*1.05*	*0.80*	*1.67*	*Sqm*
		2	*1.79*		*0.82*	*2.94*	*Sqm*
		2		*0.52*	*0.82*	*0.86*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.00*		*0.20*	*2.00*	*Sqm*
		2		*1.59*	*0.20*	*0.63*	*Sqm*
		2	*5.00*		*0.80*	*8.01*	*Sqm*
		2		*1.39*	*0.80*	*2.22*	*Sqm*
		2	*5.00*		*0.55*	*5.50*	*Sqm*
		2		*0.90*	*0.55*	*0.99*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.72*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.79*		*0.80*	*2.87*	*Sqm*
		2		*1.05*	*0.80*	*1.67*	*Sqm*
		2	*1.79*		*0.82*	*2.94*	*Sqm*
		2		*0.52*	*0.82*	*0.86*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.90*		*0.38*	*2.18*	*Sqm*
		1	*2.90*	5.25		*15.23*	*Sqm*
		2		*5.25*	0.38	*3.95*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.90*		*0.18*	*6.93*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.90*		*0.25*	*9.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.90*		*0.55*	*21.78*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**179.16**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	2				**2.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.00	0.69		*6.94*	*Cum*
	Right and left Return wall	4	2.19	1.27		*11.17*	*Cum*
	Extra slope	1	*7.50*	*1.13*	*2.25*	*18.98*	*Cum*
		1	*7.50*	*1.13*	*2.25*	*18.98*	*Cum*
	TOTAL					**56.06**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.163						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**55.85**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.00	5.25	0.39	*2.05*	*Cum*
	Approach Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.00*	*4.25*	*0.08*	*1.59*	*Cum*
	Parapet	*2*	*5.00*	*0.44*	*0.18*	*0.78*	*Cum*
		2	*5.00*	*0.35*	*0.25*	*0.88*	*Cum*
		2	*5.00*	*0.22*	*0.55*	*1.20*	*Cum*
	TOTAL					**12.80**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.42*		*1.578*	*65.0*	*Kg*
a2	*10*	*5*	*5.57*		*0.616*	*17.2*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.38*		*0.616*	*15.3*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*16*	*2.32*		*0.888*	*33.0*	*Kg*
x2	*16*	*16*	*1.27*		*1.578*	*32.2*	*Kg*
x3	*10*	*24*	*0.90*		*0.616*	*13.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1100.1*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.00*		*0.39*	*0.78*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approach Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.00*		*0.18*	*3.50*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.00*		*0.25*	*5.00*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.00*		*0.55*	*11.00*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**34.23**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**32.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR RAMPUR MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.762						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*130.00*			**130.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.18*	*1.72*	*2.15*	*16.07*	*Cum*
		1	*5.33*	*2.06*	*2.15*	*23.57*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.51*	*1.08*	*2.15*	*17.36*	*Cum*
	Left abutment	*2*	*2.18*	*2.06*	*2.15*	*19.24*	*Cum*
		1	*5.33*	*2.06*	*2.15*	*23.57*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.51*	*1.08*	*2.15*	*17.36*	*Cum*
	TOTAL					**117.16**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.03*	*1.76*	*0.20*	*1.77*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.03*	*1.76*	*0.20*	*1.77*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.60**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.03*	*1.55*	*0.20*	*1.56*	*Cum*
		1	*5.03*	*1.35*	*0.80*	*5.43*	*Cum*
		1	*5.03*	*0.93*	*0.45*	*2.11*	*Cum*
		1	*5.03*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.03*	*1.55*	*0.20*	*1.56*	*Cum*
		1	*5.03*	*1.35*	*0.80*	*5.43*	*Cum*
		1	*5.03*	*0.93*	*0.45*	*2.11*	*Cum*
		1	*5.03*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	DEDUCTION	*2*	*5.03*	*0.40*	*0.45*	*-1.81*	*Cum*
	TOTAL					**31.06**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.37	5.25	0.33	*4.05*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.37*	*4.25*	*0.08*	*2.99*	*Cum*
	Parapet	*2*	*9.37*	*0.44*	*0.18*	*1.46*	*Cum*
		2	*9.37*	*0.35*	*0.25*	*1.64*	*Cum*
		2	*9.37*	*0.22*	*0.55*	*2.26*	*Cum*
	TOTAL					**23.42**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.83*		*1.578*	*129.6*	*Kg*
a2	*10*	*12*	*5.65*		*0.616*	*41.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.75*		*0.616*	*30.5*	*Kg*
a5	*10*	*9*	*5.55*		*0.616*	*30.8*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*38*	*2.32*		*0.888*	*78.3*	*Kg*
x2	*16*	*38*	*1.27*		*1.578*	*76.4*	*Kg*
x3	*10*	*24*	*2.27*		*0.616*	*33.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*31.1*	*0.0025*	*0.078*	*7850.00*	*609.60*	*Kg*
	Total Reinforcement Steel (in kg)					*2565.8*	*Kg*
	Total Weight in Metric Tonne					**2.57**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.03*		*0.20*	*2.01*	*Sqm*
		2		*1.55*	*0.20*	*0.62*	*Sqm*
		2	*5.03*		*0.80*	*8.05*	*Sqm*
		2		*1.35*	*0.80*	*2.16*	*Sqm*
		2	*5.03*		*0.45*	*4.53*	*Sqm*
		2		*0.93*	*0.45*	*0.84*	*Sqm*
		2	*5.03*		*0.50*	*5.03*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.03*		*0.20*	*2.01*	*Sqm*
		2		*1.55*	*0.20*	*0.62*	*Sqm*
		2	*5.03*		*0.80*	*8.05*	*Sqm*
		2		*1.35*	*0.80*	*2.16*	*Sqm*
		2	*5.03*		*0.45*	*4.53*	*Sqm*
		2		*0.93*	*0.45*	*0.84*	*Sqm*
		2	*5.03*		*0.50*	*5.03*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.37*		*0.33*	*1.54*	*Sqm*
		1	*2.37*	5.25		*12.45*	*Sqm*
		2		*5.25*	0.33	*3.41*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.37*		*0.18*	*6.56*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.37*		*0.25*	*9.37*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.37*		*0.55*	*20.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**169.70**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.03	0.64		*6.47*	*Cum*
	Right and left Return wall	4	2.18	1.17		*10.16*	*Cum*
	Extra slope	*1*	*7.51*	*1.08*	*2.15*	*17.36*	*Cum*
		1	*7.51*	*1.08*	*2.15*	*17.36*	*Cum*
	TOTAL					**51.35**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.499						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*60.00*			**60.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**70.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**4.76**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.15	8.50	0.38	*3.76*	*Cum*
	Approach Slab	*2*	*3.50*	*8.50*	*0.30*	*17.85*	*Cum*
	Wearing coat	*1*	*8.15*	*7.50*	*0.08*	*4.58*	*Cum*
	Parapet	*2*	*8.15*	*0.44*	*0.18*	*1.27*	*Cum*
		2	*8.15*	*0.35*	*0.25*	*1.43*	*Cum*
		2	*8.15*	*0.22*	*0.55*	*1.96*	*Cum*
	TOTAL					**30.85**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*1.57*		*1.578*	*114.0*	*Kg*
a2	*10*	*6*	*8.88*		*0.616*	*32.8*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*1.53*		*0.616*	*27.4*	*Kg*
a5	*10*	*4*	*8.80*		*0.616*	*21.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*26*	*8.70*		*0.888*	*200.8*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*26*	*8.70*		*0.888*	*200.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*18*	*2.32*		*0.888*	*37.1*	*Kg*
x2	*16*	*18*	*1.27*		*1.578*	*36.2*	*Kg*
x3	*10*	*24*	*1.05*		*0.616*	*15.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1973.9*	*Kg*
	Total Weight in Metric Tonne					**1.97**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.15*		*0.38*	*0.88*	*Sqm*
		2		*8.50*	0.38	*6.54*	*Sqm*
	Approach Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		4		*8.50*	0.30	*10.20*	*Sqm*
	Parapet	*4*	*8.15*		*0.18*	*5.71*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.15*		*0.25*	*8.15*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.15*		*0.55*	*17.93*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**54.75**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	2				**2.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.20*		*3.40*	*Sqm*
	TOTAL					**3.40**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**40.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR GULAB BIGHA MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.183						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.17*	*1.74*	*2.09*	*15.80*	*Cum*
		1	*5.31*	*2.04*	*2.09*	*22.59*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*1.05*	*2.09*	*16.33*	*Cum*
	Left abutment	*2*	*2.17*	*2.04*	*2.09*	*18.46*	*Cum*
		1	*5.31*	*2.04*	*2.09*	*22.59*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*1.05*	*2.09*	*16.33*	*Cum*
	TOTAL					**112.10**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.87*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.01*	*1.74*	*0.20*	*1.74*	*Cum*
	Left abutment	*2*	*1.87*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.01*	*1.74*	*0.20*	*1.74*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.58**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.01*	*1.54*	*0.20*	*1.54*	*Cum*
		1	*5.01*	*1.34*	*0.80*	*5.35*	*Cum*
		1	*5.01*	*0.88*	*0.39*	*1.72*	*Cum*
		1	*5.01*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.77*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.77*	*1.04*	*0.80*	*2.95*	*Cum*
		2	*1.77*	*0.52*	*0.81*	*1.49*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.01*	*1.54*	*0.20*	*1.54*	*Cum*
		1	*5.01*	*1.34*	*0.80*	*5.35*	*Cum*
		1	*5.01*	*0.88*	*0.39*	*1.72*	*Cum*
		1	*5.01*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.77*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.77*	*1.04*	*0.80*	*2.95*	*Cum*
		2	*1.77*	*0.52*	*0.81*	*1.49*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**32.40**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.07	5.25	0.39	*4.18*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*9.07*	*4.25*	*0.08*	*2.89*	*Cum*
	Parapet	*2*	*9.07*	*0.44*	*0.18*	*1.41*	*Cum*
		2	*9.07*	*0.35*	*0.25*	*1.59*	*Cum*
		2	*9.07*	*0.22*	*0.55*	*2.18*	*Cum*
	TOTAL					**23.29**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.53*		*1.578*	*115.8*	*Kg*
a2	*10*	*10*	*5.59*		*0.616*	*34.5*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.45*		*0.616*	*27.2*	*Kg*
a5	*10*	*7*	*5.55*		*0.616*	*23.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*34*	*2.32*		*0.888*	*70.1*	*Kg*
x2	*16*	*34*	*1.30*		*1.578*	*69.5*	*Kg*
x3	*10*	*24*	*1.97*		*0.616*	*29.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.35*		*0.888*	*242.2*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.4*	*0.0025*	*0.081*	*7850.00*	*635.80*	*Kg*
	Total Reinforcement Steel (in kg)					*2493.1*	*Kg*
	Total Weight in Metric Tonne					**2.49**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.01*		*0.20*	*2.00*	*Sqm*
		2		*1.54*	*0.20*	*0.61*	*Sqm*
		2	*5.01*		*0.80*	*8.01*	*Sqm*
		2		*1.34*	*0.80*	*2.14*	*Sqm*
		2	*5.01*		*0.39*	*3.91*	*Sqm*
		2		*0.88*	*0.39*	*0.69*	*Sqm*
		2	*5.01*		*0.50*	*5.01*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.04*	*0.80*	*1.67*	*Sqm*
		2	*1.77*		*0.81*	*2.86*	*Sqm*
		2		*0.52*	*0.81*	*0.84*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.01*		*0.20*	*2.00*	*Sqm*
		2		*1.54*	*0.20*	*0.61*	*Sqm*
		2	*5.01*		*0.80*	*8.01*	*Sqm*
		2		*1.34*	*0.80*	*2.14*	*Sqm*
		2	*5.01*		*0.39*	*3.91*	*Sqm*
		2		*0.88*	*0.39*	*0.69*	*Sqm*
		2	*5.01*		*0.50*	*5.01*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.04*	*0.80*	*1.67*	*Sqm*
		2	*1.77*		*0.81*	*2.86*	*Sqm*
		2		*0.52*	*0.81*	*0.84*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.07*		*0.39*	*1.59*	*Sqm*
		1	*2.07*	5.25		*10.87*	*Sqm*
		2		*5.25*	0.39	*4.04*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.07*		*0.18*	*6.35*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.07*		*0.25*	*9.07*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.07*		*0.55*	*19.95*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**166.77**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.01	0.65		*6.46*	*Cum*
	Right and left Return wall	4	2.17	1.26		*10.94*	*Cum*
	Below Approach Slab	*1*	*5.01*	*2.597*	*1.48*	*19.24*	*Cum*
	Extra slope	*1*	*7.476*	*1.045*	*2.09*	*16.33*	*Cum*
		1	*7.4755*	*1.045*	*2.09*	*16.33*	*Cum*
	TOTAL					**69.29**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.823						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*60.00*			**60.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**70.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.10	5.25	0.39	*2.26*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.10*	*4.25*	*0.08*	*1.63*	*Cum*
	Parapet	*2*	*5.10*	*0.44*	*0.18*	*0.79*	*Cum*
		2	*5.10*	*0.35*	*0.25*	*0.90*	*Cum*
		2	*5.10*	*0.22*	*0.55*	*1.23*	*Cum*
	TOTAL					**13.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.52*		*1.578*	*69.6*	*Kg*
a2	*10*	*6*	*5.57*		*0.616*	*20.6*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.48*		*0.616*	*16.4*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*1.00*		*0.616*	*14.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1102.6*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.10*		*0.39*	*0.86*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.10*		*0.18*	*3.57*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.10*		*0.25*	*5.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.10*		*0.55*	*11.22*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**34.69**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**30.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.975						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**110.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.10	5.25	0.39	*2.26*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.10*	*4.25*	*0.08*	*1.63*	*Cum*
	Parapet	*2*	*5.10*	*0.44*	*0.18*	*0.79*	*Cum*
		2	*5.10*	*0.35*	*0.25*	*0.90*	*Cum*
		2	*5.10*	*0.22*	*0.55*	*1.23*	*Cum*
	TOTAL					**13.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.52*		*1.578*	*69.6*	*Kg*
a2	*10*	*6*	*5.57*		*0.616*	*20.6*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.48*		*0.616*	*16.4*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*1.00*		*0.616*	*14.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1102.6*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.10*		*0.39*	*0.86*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.10*		*0.18*	*3.57*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.10*		*0.25*	*5.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.10*		*0.55*	*11.22*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**34.69**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**30.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.240						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.22*	*1.87*	*1.20*	*9.96*	*Cum*
		1	*6.42*	*2.13*	*1.20*	*16.41*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.63*	*0.60*	*1.20*	*6.22*	*Cum*
	Left abutment	*2*	*2.22*	*2.13*	*1.20*	*11.33*	*Cum*
		1	*6.42*	*2.13*	*1.20*	*16.41*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.63*	*0.60*	*1.20*	*6.22*	*Cum*
	TOTAL					**66.54**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.57*	*0.20*	*1.21*	*Cum*
		1	*6.12*	*1.83*	*0.20*	*2.24*	*Cum*
	Left abutment	*2*	*1.92*	*1.57*	*0.20*	*1.21*	*Cum*
		1	*6.12*	*1.83*	*0.20*	*2.24*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**9.97**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.13*	*1.63*	*0.20*	*2.00*	*Cum*
		1	*6.13*	*1.43*	*0.80*	*7.01*	*Cum*
		1	*6.13*	*0.93*	*0.72*	*4.10*	*Cum*
		1	*6.13*	*0.82*	*0.55*	*2.76*	*Cum*
	Return wall	*2*	*1.82*	*1.37*	*0.20*	*1.00*	*Cum*
		2	*1.82*	*1.17*	*0.80*	*3.41*	*Cum*
		2	*1.82*	*0.59*	*1.24*	*2.65*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.13*	*1.63*	*0.20*	*2.00*	*Cum*
		1	*6.13*	*1.43*	*0.80*	*7.01*	*Cum*
		1	*6.13*	*0.93*	*0.72*	*4.10*	*Cum*
		1	*6.13*	*0.82*	*0.55*	*2.76*	*Cum*
	Return wall	*2*	*1.82*	*1.37*	*0.20*	*1.00*	*Cum*
		2	*1.82*	*1.17*	*0.80*	*3.41*	*Cum*
		2	*1.82*	*0.59*	*1.24*	*2.65*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**46.30**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.89	6.50	0.42	*10.68*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*
	Wearing coat	*1*	*10.89*	*5.50*	*0.08*	*4.49*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.89*	*0.44*	*0.18*	*1.69*	*Cum*
		2	*10.89*	*0.35*	*0.25*	*1.91*	*Cum*
		2	*10.89*	*0.22*	*0.55*	*2.62*	*Cum*
	TOTAL					**35.05**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.45*		*1.578*	*323.0*	*Kg*
a2	*10*	*20*	*6.90*		*0.616*	*85.1*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*4.31*		*0.616*	*69.1*	*Kg*
a5	*10*	*16*	*6.69*		*0.616*	*66.0*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*64*	*2.37*		*0.888*	*134.8*	*Kg*
x2	*16*	*64*	*1.32*		*1.578*	*133.7*	*Kg*
x3	*10*	*24*	*3.79*		*0.616*	*56.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*46.3*	*0.0025*	*0.116*	*7850.00*	*908.65*	*Kg*
	Total Reinforcement Steel (in kg)					*3469.2*	*Kg*
	Total Weight in Metric Tonne					**3.47**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.13*		*0.20*	*2.45*	*Sqm*
		2		*1.63*	*0.20*	*0.65*	*Sqm*
		2	*6.13*		*0.80*	*9.80*	*Sqm*
		2		*1.43*	*0.80*	*2.29*	*Sqm*
		2	*6.13*		*0.72*	*8.87*	*Sqm*
		2		*0.93*	*0.72*	*1.34*	*Sqm*
		2	*6.13*		*0.55*	*6.74*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.37*	*0.20*	*0.55*	*Sqm*
		2	*1.82*		*0.80*	*2.90*	*Sqm*
		2		*1.17*	*0.80*	*1.88*	*Sqm*
		2	*1.82*		*1.24*	*4.52*	*Sqm*
		2		*0.59*	*1.24*	*1.46*	*Sqm*
		2	*1.82*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.13*		*0.20*	*2.45*	*Sqm*
		2		*1.63*	*0.20*	*0.65*	*Sqm*
		2	*6.13*		*0.80*	*9.80*	*Sqm*
		2		*1.43*	*0.80*	*2.29*	*Sqm*
		2	*6.13*		*0.72*	*8.87*	*Sqm*
		2		*0.93*	*0.72*	*1.34*	*Sqm*
		2	*6.13*		*0.55*	*6.74*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.37*	*0.20*	*0.55*	*Sqm*
		2	*1.82*		*0.80*	*2.90*	*Sqm*
		2		*1.17*	*0.80*	*1.88*	*Sqm*
		2	*1.82*		*1.24*	*4.52*	*Sqm*
		2		*0.59*	*1.24*	*1.46*	*Sqm*
		2	*1.82*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.89*		*0.42*	*3.29*	*Sqm*
		1	*3.89*	6.50		*25.29*	*Sqm*
		2		*6.50*	0.42	*5.49*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*10.89*		*0.18*	*7.62*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.89*		*0.25*	*10.89*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.89*		*0.55*	*23.96*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**226.67**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.13	0.84		*10.25*	*Cum*
	Right and left Return wall	4	2.22	1.76		*15.63*	*Cum*
	Extra slope	*1*	*8.63*	*0.60*	*1.20*	*6.22*	*Cum*
		1	*8.63*	*0.60*	*1.20*	*6.22*	*Cum*
	TOTAL					**38.31**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.975						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.20*	*1.76*	*1.20*	*9.31*	*Cum*
		1	*5.29*	*2.10*	*1.20*	*13.34*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.49*	*0.60*	*1.20*	*5.39*	*Cum*
	Left abutment	*2*	*2.20*	*2.10*	*1.20*	*11.10*	*Cum*
		1	*5.29*	*2.10*	*1.20*	*13.34*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.49*	*0.60*	*1.20*	*5.39*	*Cum*
	TOTAL					**57.87**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.90*	*1.46*	*0.20*	*1.11*	*Cum*
		1	*4.99*	*1.80*	*0.20*	*1.80*	*Cum*
	Left abutment	*2*	*1.90*	*1.46*	*0.20*	*1.11*	*Cum*
		1	*4.99*	*1.80*	*0.20*	*1.80*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.76**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.89*	*1.60*	*0.20*	*1.57*	*Cum*
		1	*4.89*	*1.40*	*0.80*	*5.48*	*Cum*
		1	*4.89*	*0.91*	*0.61*	*2.70*	*Cum*
		1	*4.89*	*0.82*	*0.50*	*2.00*	*Cum*
	Return wall	*2*	*1.80*	*1.26*	*0.20*	*0.91*	*Cum*
		2	*1.80*	*1.11*	*0.80*	*3.21*	*Cum*
		2	*1.80*	*0.58*	*0.88*	*1.83*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*4.89*	*1.60*	*0.20*	*1.57*	*Cum*
		1	*4.89*	*1.40*	*0.80*	*5.48*	*Cum*
		1	*4.89*	*0.91*	*0.61*	*2.70*	*Cum*
		1	*4.89*	*0.82*	*0.50*	*2.00*	*Cum*
	Return wall	*2*	*1.80*	*1.26*	*0.20*	*0.91*	*Cum*
		2	*1.80*	*1.11*	*0.80*	*3.21*	*Cum*
		2	*1.80*	*0.58*	*0.88*	*1.83*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**35.83**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.13	5.25	0.39	*6.38*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.13*	*4.25*	*0.08*	*3.23*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.13*	*0.44*	*0.18*	*1.58*	*Cum*
		2	*10.13*	*0.35*	*0.25*	*1.78*	*Cum*
		2	*10.13*	*0.22*	*0.55*	*2.44*	*Cum*
	TOTAL					**26.43**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.59*		*1.578*	*164.1*	*Kg*
a2	*10*	*16*	*5.65*		*0.616*	*55.7*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.51*		*0.616*	*38.9*	*Kg*
a5	*10*	*11*	*5.65*		*0.616*	*38.3*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*52*	*2.32*		*0.888*	*107.1*	*Kg*
x2	*16*	*52*	*1.27*		*1.578*	*104.6*	*Kg*
x3	*10*	*24*	*3.03*		*0.616*	*44.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*35.8*	*0.0025*	*0.090*	*7850.00*	*703.23*	*Kg*
	Total Reinforcement Steel (in kg)					*2740.9*	*Kg*
	Total Weight in Metric Tonne					**2.74**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.89*		*0.20*	*1.95*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*4.89*		*0.80*	*7.82*	*Sqm*
		2		*1.40*	*0.80*	*2.24*	*Sqm*
		2	*4.89*		*0.61*	*5.92*	*Sqm*
		2		*0.91*	*0.61*	*1.10*	*Sqm*
		2	*4.89*		*0.50*	*4.89*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.26*	*0.20*	*0.51*	*Sqm*
		2	*1.80*		*0.80*	*2.88*	*Sqm*
		2		*1.11*	*0.80*	*1.78*	*Sqm*
		2	*1.80*		*0.88*	*3.16*	*Sqm*
		2		*0.58*	*0.88*	*1.02*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.89*		*0.20*	*1.95*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*4.89*		*0.80*	*7.82*	*Sqm*
		2		*1.40*	*0.80*	*2.24*	*Sqm*
		2	*4.89*		*0.61*	*5.92*	*Sqm*
		2		*0.91*	*0.61*	*1.10*	*Sqm*
		2	*4.89*		*0.50*	*4.89*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.26*	*0.20*	*0.51*	*Sqm*
		2	*1.80*		*0.80*	*2.88*	*Sqm*
		2		*1.11*	*0.80*	*1.78*	*Sqm*
		2	*1.80*		*0.88*	*3.16*	*Sqm*
		2		*0.58*	*0.88*	*1.02*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.13*		*0.39*	*2.43*	*Sqm*
		1	*3.13*	5.25		*16.41*	*Sqm*
		2		*5.25*	0.39	*4.08*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.13*		*0.18*	*7.09*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.13*		*0.25*	*10.13*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.13*		*0.55*	*22.28*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**183.04**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.89	0.72		*7.06*	*Cum*
	Right and left Return wall	4	2.20	1.34		*11.75*	*Cum*
	Extra slope	1	*7.49*	*0.60*	*1.20*	*5.39*	*Cum*
		1	*7.49*	*0.60*	*1.20*	*5.39*	*Cum*
	TOTAL					**29.59**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.125						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*130.00*			**130.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.33*	*1.90*	*1.20*	*10.61*	*Cum*
		1	*5.15*	*2.35*	*1.20*	*14.52*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*0.60*	*1.20*	*5.38*	*Cum*
	Left abutment	*2*	*2.33*	*2.35*	*1.20*	*13.13*	*Cum*
		1	*5.15*	*2.35*	*1.20*	*14.52*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.48*	*0.60*	*1.20*	*5.38*	*Cum*
	TOTAL					**63.55**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*2.03*	*1.60*	*0.20*	*1.30*	*Cum*
		1	*4.85*	*2.05*	*0.20*	*1.99*	*Cum*
	Left abutment	*2*	*2.03*	*1.60*	*0.20*	*1.30*	*Cum*
		1	*4.85*	*2.05*	*0.20*	*1.99*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**9.51**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.85*	*1.81*	*0.20*	*1.75*	*Cum*
		1	*4.85*	*1.61*	*0.80*	*6.23*	*Cum*
		1	*4.85*	*1.01*	*1.06*	*5.22*	*Cum*
		1	*4.85*	*0.82*	*0.50*	*1.99*	*Cum*
	Return wall	*2*	*1.90*	*1.40*	*0.20*	*1.07*	*Cum*
		2	*1.90*	*1.25*	*0.80*	*3.81*	*Cum*
		2	*1.90*	*0.65*	*1.33*	*3.29*	*Cum*
		2	*1.90*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*4.85*	*1.81*	*0.20*	*1.75*	*Cum*
		1	*4.85*	*1.61*	*0.80*	*6.23*	*Cum*
		1	*4.85*	*1.01*	*1.06*	*5.22*	*Cum*
		1	*4.85*	*0.82*	*0.50*	*1.99*	*Cum*
	Return wall	*2*	*1.90*	*1.40*	*0.20*	*1.07*	*Cum*
		2	*1.90*	*1.25*	*0.80*	*3.81*	*Cum*
		2	*1.90*	*0.65*	*1.33*	*3.29*	*Cum*
		2	*1.90*	*0.40*	*0.15*	*0.23*	*Cum*
	DEDUCTION	*2*	*4.85*	*0.40*	*0.45*	*-1.75*	*Cum*
	TOTAL					**45.40**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.37	5.25	0.39	*4.86*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*9.37*	*4.25*	*0.08*	*2.99*	*Cum*
	Parapet	*2*	*9.37*	*0.44*	*0.18*	*1.46*	*Cum*
		2	*9.37*	*0.35*	*0.25*	*1.64*	*Cum*
		2	*9.37*	*0.22*	*0.55*	*2.26*	*Cum*
	TOTAL					**24.24**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.83*		*1.578*	*129.6*	*Kg*
a2	*10*	*12*	*5.65*		*0.616*	*41.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.75*		*0.616*	*30.5*	*Kg*
a5	*10*	*8*	*5.55*		*0.616*	*27.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*38*	*2.32*		*0.888*	*78.3*	*Kg*
x2	*16*	*38*	*1.27*		*1.578*	*76.4*	*Kg*
x3	*10*	*24*	*2.27*		*0.616*	*33.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*45.4*	*0.0025*	*0.114*	*7850.00*	*891.05*	*Kg*
	Total Reinforcement Steel (in kg)					*2843.8*	*Kg*
	Total Weight in Metric Tonne					**2.84**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.85*		*0.20*	*1.94*	*Sqm*
		2		*1.81*	*0.20*	*0.72*	*Sqm*
		2	*4.85*		*0.80*	*7.76*	*Sqm*
		2		*1.61*	*0.80*	*2.57*	*Sqm*
		2	*4.85*		*1.06*	*10.30*	*Sqm*
		2		*1.01*	*1.06*	*2.15*	*Sqm*
		2	*4.85*		*0.50*	*4.85*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.90*		*0.20*	*0.76*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.90*		*0.80*	*3.04*	*Sqm*
		2		*1.25*	*0.80*	*2.00*	*Sqm*
		2	*1.90*		*1.33*	*5.07*	*Sqm*
		2		*0.65*	*1.33*	*1.73*	*Sqm*
		2	*1.90*		*0.15*	*0.57*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*4.85*		*0.20*	*1.94*	*Sqm*
		2		*1.81*	*0.20*	*0.72*	*Sqm*
		2	*4.85*		*0.80*	*7.76*	*Sqm*
		2		*1.61*	*0.80*	*2.57*	*Sqm*
		2	*4.85*		*1.06*	*10.30*	*Sqm*
		2		*1.01*	*1.06*	*2.15*	*Sqm*
		2	*4.85*		*0.50*	*4.85*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.90*		*0.20*	*0.76*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.90*		*0.80*	*3.04*	*Sqm*
		2		*1.25*	*0.80*	*2.00*	*Sqm*
		2	*1.90*		*1.33*	*5.07*	*Sqm*
		2		*0.65*	*1.33*	*1.73*	*Sqm*
		2	*1.90*		*0.15*	*0.57*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.37*		*0.39*	*1.85*	*Sqm*
		1	*2.37*	5.25		*12.45*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.37*		*0.18*	*6.56*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.37*		*0.25*	*9.37*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.37*		*0.55*	*20.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**193.29**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.85	1.34		*13.01*	*Cum*
	Right and left Return wall	4	2.33	1.87		*17.43*	*Cum*
	Extra slope	*1*	*7.48*	*0.60*	*1.20*	*5.38*	*Cum*
		1	*7.48*	*0.60*	*1.20*	*5.38*	*Cum*
	TOTAL					**41.20**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.550						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*60.00*			**60.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**70.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.16	5.25	0.39	*2.38*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.16*	*4.25*	*0.08*	*1.64*	*Cum*
	Parapet	*2*	*5.16*	*0.44*	*0.18*	*0.80*	*Cum*
		2	*5.16*	*0.35*	*0.25*	*0.91*	*Cum*
		2	*5.16*	*0.22*	*0.55*	*1.24*	*Cum*
	TOTAL					**13.27**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.58*		*1.578*	*72.3*	*Kg*
a2	*10*	*6*	*5.63*		*0.616*	*20.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.54*		*0.616*	*17.1*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*18*	*2.32*		*0.888*	*37.1*	*Kg*
x2	*16*	*18*	*1.27*		*1.578*	*36.2*	*Kg*
x3	*10*	*24*	*1.06*		*0.616*	*15.7*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1123.5*	*Kg*
	Total Weight in Metric Tonne					**1.12**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.16*		*0.39*	*0.91*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.16*		*0.18*	*3.61*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.16*		*0.25*	*5.16*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.16*		*0.55*	*11.35*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**34.97**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**30.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR MALHAD SUB DY.						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.280						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.21*	*1.79*	*1.43*	*11.31*	*Cum*
		1	*6.51*	*2.12*	*1.43*	*19.66*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.72*	*0.71*	*1.43*	*8.87*	*Cum*
	Left abutment	*2*	*2.21*	*2.12*	*1.43*	*13.35*	*Cum*
		1	*6.51*	*2.12*	*1.43*	*19.66*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.72*	*0.71*	*1.43*	*8.87*	*Cum*
	TOTAL					**81.74**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.91*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*6.21*	*1.82*	*0.20*	*2.26*	*Cum*
	Left abutment	*2*	*1.91*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*6.21*	*1.82*	*0.20*	*2.26*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.43**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.57*	*1.62*	*0.20*	*2.13*	*Cum*
		1	*6.57*	*1.42*	*0.80*	*7.45*	*Cum*
		1	*6.57*	*0.92*	*0.66*	*3.98*	*Cum*
		1	*6.57*	*0.82*	*0.55*	*2.96*	*Cum*
	Return wall	*2*	*1.81*	*1.29*	*0.20*	*0.94*	*Cum*
		2	*1.81*	*1.09*	*0.80*	*3.17*	*Cum*
		2	*1.81*	*0.55*	*0.98*	*1.94*	*Cum*
		2	*1.81*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.57*	*1.62*	*0.20*	*2.13*	*Cum*
		1	*6.57*	*1.42*	*0.80*	*7.45*	*Cum*
		1	*6.57*	*0.92*	*0.66*	*3.98*	*Cum*
		1	*6.57*	*0.82*	*0.55*	*2.96*	*Cum*
	Return wall	*2*	*1.81*	*1.29*	*0.20*	*0.94*	*Cum*
		2	*1.81*	*1.09*	*0.80*	*3.17*	*Cum*
		2	*1.81*	*0.55*	*0.98*	*1.94*	*Cum*
		2	*1.81*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**45.56**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.96	6.50	0.42	*10.88*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*10.96*	*5.50*	*0.08*	*4.52*	*Cum*
	Parapet	*2*	*10.96*	*0.44*	*0.18*	*1.71*	*Cum*
		2	*10.96*	*0.35*	*0.25*	*1.92*	*Cum*
		2	*10.96*	*0.22*	*0.55*	*2.64*	*Cum*
	TOTAL					**35.31**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.52*		*1.578*	*328.1*	*Kg*
a2	*10*	*20*	*6.90*		*0.616*	*85.1*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*4.38*		*0.616*	*70.2*	*Kg*
a5	*10*	*16*	*6.69*		*0.616*	*66.0*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*66*	*2.37*		*0.888*	*138.9*	*Kg*
x2	*16*	*66*	*1.32*		*1.578*	*137.9*	*Kg*
x3	*10*	*24*	*3.86*		*0.616*	*57.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*45.6*	*0.0025*	*0.114*	*7850.00*	*894.17*	*Kg*
	Total Reinforcement Steel (in kg)					*3470.3*	*Kg*
	Total Weight in Metric Tonne					**3.47**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.57*		*0.20*	*2.63*	*Sqm*
		2		*1.62*	*0.20*	*0.65*	*Sqm*
		2	*6.57*		*0.80*	*10.51*	*Sqm*
		2		*1.42*	*0.80*	*2.27*	*Sqm*
		2	*6.57*		*0.66*	*8.67*	*Sqm*
		2		*0.92*	*0.66*	*1.21*	*Sqm*
		2	*6.57*		*0.55*	*7.22*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.81*		*0.20*	*0.72*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.81*		*0.80*	*2.89*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.81*		*0.98*	*3.55*	*Sqm*
		2		*0.55*	*0.98*	*1.07*	*Sqm*
		2	*1.81*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.57*		*0.20*	*2.63*	*Sqm*
		2		*1.62*	*0.20*	*0.65*	*Sqm*
		2	*6.57*		*0.80*	*10.51*	*Sqm*
		2		*1.42*	*0.80*	*2.27*	*Sqm*
		2	*6.57*		*0.66*	*8.67*	*Sqm*
		2		*0.92*	*0.66*	*1.21*	*Sqm*
		2	*6.57*		*0.55*	*7.22*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.81*		*0.20*	*0.72*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.81*		*0.80*	*2.89*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.81*		*0.98*	*3.55*	*Sqm*
		2		*0.55*	*0.98*	*1.07*	*Sqm*
		2	*1.81*		*0.15*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.96*		*0.42*	*3.35*	*Sqm*
		1	*3.96*	6.50		*25.74*	*Sqm*
		2		*6.50*	0.42	*5.49*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*10.96*		*0.18*	*7.67*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.96*		*0.25*	*10.96*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.96*		*0.55*	*24.11*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**226.42**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.57	0.74		*9.69*	*Cum*
	Right and left Return wall	4	2.21	1.45		*12.83*	*Cum*
	Below Approach Slab	*1*	*6.57*	*2.597*	*1.48*	*25.24*	*Cum*
	Extra slope	*1*	*8.715*	*0.7135*	*1.427*	*8.87*	*Cum*
		1	*8.715*	*0.7135*	*1.427*	*8.87*	*Cum*
	TOTAL					**65.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.390						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.19*	*1.76*	*1.21*	*9.28*	*Cum*
		1	*6.54*	*2.08*	*1.21*	*16.41*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.73*	*0.60*	*1.21*	*6.34*	*Cum*
	Left abutment	*2*	*2.19*	*2.08*	*1.21*	*10.99*	*Cum*
		1	*6.54*	*2.08*	*1.21*	*16.41*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.73*	*0.60*	*1.21*	*6.34*	*Cum*
	TOTAL					**65.78**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.46*	*0.20*	*1.10*	*Cum*
		1	*6.24*	*1.78*	*0.20*	*2.22*	*Cum*
	Left abutment	*2*	*1.89*	*1.46*	*0.20*	*1.10*	*Cum*
		1	*6.24*	*1.78*	*0.20*	*2.22*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.29**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.24*	*1.58*	*0.20*	*1.97*	*Cum*
		1	*6.24*	*1.38*	*0.80*	*6.90*	*Cum*
		1	*6.24*	*0.90*	*0.54*	*3.04*	*Cum*
		1	*6.24*	*0.82*	*0.55*	*2.82*	*Cum*
	Return wall	*2*	*1.79*	*1.26*	*0.20*	*0.90*	*Cum*
		2	*1.79*	*1.06*	*0.80*	*3.03*	*Cum*
		2	*1.79*	*0.53*	*0.86*	*1.63*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*6.24*	*1.58*	*0.20*	*1.97*	*Cum*
		1	*6.24*	*1.38*	*0.80*	*6.90*	*Cum*
		1	*6.24*	*0.90*	*0.54*	*3.04*	*Cum*
		1	*6.24*	*0.82*	*0.55*	*2.82*	*Cum*
	Return wall	*2*	*1.79*	*1.26*	*0.20*	*0.90*	*Cum*
		2	*1.79*	*1.06*	*0.80*	*3.03*	*Cum*
		2	*1.79*	*0.53*	*0.86*	*1.63*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**41.01**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.52	6.50	0.42	*9.67*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*
	Wearing coat	*1*	*10.52*	*5.50*	*0.08*	*4.34*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.52*	*0.44*	*0.18*	*1.64*	*Cum*
		2	*10.52*	*0.35*	*0.25*	*1.85*	*Cum*
		2	*10.52*	*0.22*	*0.55*	*2.53*	*Cum*
	TOTAL					**33.67**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.08*		*1.578*	*296.2*	*Kg*
a2	*10*	*18*	*6.90*		*0.616*	*76.6*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*3.94*		*0.616*	*63.2*	*Kg*
a5	*10*	*14*	*6.69*		*0.616*	*57.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*58*	*2.37*		*0.888*	*122.1*	*Kg*
x2	*16*	*58*	*1.32*		*1.578*	*121.2*	*Kg*
x3	*10*	*24*	*3.42*		*0.616*	*50.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*41.0*	*0.0025*	*0.103*	*7850.00*	*804.85*	*Kg*
	Total Reinforcement Steel (in kg)					*3285.2*	*Kg*
	Total Weight in Metric Tonne					**3.29**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.24*		*0.20*	*2.50*	*Sqm*
		2		*1.58*	*0.20*	*0.63*	*Sqm*
		2	*6.24*		*0.80*	*9.99*	*Sqm*
		2		*1.38*	*0.80*	*2.21*	*Sqm*
		2	*6.24*		*0.54*	*6.74*	*Sqm*
		2		*0.90*	*0.54*	*0.97*	*Sqm*
		2	*6.24*		*0.55*	*6.87*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.72*	*Sqm*
		2		*1.26*	*0.20*	*0.50*	*Sqm*
		2	*1.79*		*0.80*	*2.87*	*Sqm*
		2		*1.06*	*0.80*	*1.69*	*Sqm*
		2	*1.79*		*0.86*	*3.08*	*Sqm*
		2		*0.53*	*0.86*	*0.91*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.24*		*0.20*	*2.50*	*Sqm*
		2		*1.58*	*0.20*	*0.63*	*Sqm*
		2	*6.24*		*0.80*	*9.99*	*Sqm*
		2		*1.38*	*0.80*	*2.21*	*Sqm*
		2	*6.24*		*0.54*	*6.74*	*Sqm*
		2		*0.90*	*0.54*	*0.97*	*Sqm*
		2	*6.24*		*0.55*	*6.87*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.72*	*Sqm*
		2		*1.26*	*0.20*	*0.50*	*Sqm*
		2	*1.79*		*0.80*	*2.87*	*Sqm*
		2		*1.06*	*0.80*	*1.69*	*Sqm*
		2	*1.79*		*0.86*	*3.08*	*Sqm*
		2		*0.53*	*0.86*	*0.91*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.52*		*0.42*	*2.97*	*Sqm*
		1	*3.52*	6.50		*22.88*	*Sqm*
		2		*6.50*	0.42	*5.49*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*10.52*		*0.18*	*7.36*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.52*		*0.25*	*10.52*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.52*		*0.55*	*23.14*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**213.49**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.24	0.66		*8.29*	*Cum*
	Right and left Return wall	4	2.19	1.32		*11.55*	*Cum*
	Below Approach Slab	*1*	*6.24*	*2.597*	*1.48*	*23.99*	*Cum*
	Extra slope	*1*	*8.733*	*0.6025*	*1.205*	*6.34*	*Cum*
		1	*8.733*	*0.6025*	*1.205*	*6.34*	*Cum*
	TOTAL					**56.51**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.950						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.61*	*1.27*	*1.47*	*9.76*	*Cum*
		1	*6.23*	*1.61*	*1.47*	*14.75*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.84*	*0.74*	*1.47*	*9.56*	*Cum*
	Left abutment	*2*	*2.61*	*1.61*	*1.47*	*12.36*	*Cum*
		1	*6.23*	*1.61*	*1.47*	*14.75*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.84*	*0.74*	*1.47*	*9.56*	*Cum*
	TOTAL					**70.75**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*2.31*	*0.97*	*0.20*	*0.90*	*Cum*
		1	*5.93*	*1.31*	*0.20*	*1.55*	*Cum*
	Left abutment	*2*	*2.31*	*0.97*	*0.20*	*0.90*	*Cum*
		1	*5.93*	*1.31*	*0.20*	*1.55*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**8.54**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.93*	*1.11*	*0.20*	*1.32*	*Cum*
		1	*5.93*	*1.06*	*0.80*	*5.03*	*Cum*
		1	*5.93*	*0.87*	*0.30*	*1.54*	*Cum*
		1	*5.93*	*0.82*	*0.50*	*2.43*	*Cum*
	Return wall	*2*	*1.56*	*0.77*	*0.20*	*0.48*	*Cum*
		2	*1.56*	*0.67*	*0.80*	*1.67*	*Cum*
		2	*1.56*	*0.49*	*0.57*	*0.86*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*5.93*	*1.11*	*0.20*	*1.32*	*Cum*
		1	*5.93*	*1.06*	*0.80*	*5.03*	*Cum*
		1	*5.93*	*0.87*	*0.30*	*1.54*	*Cum*
		1	*5.93*	*0.82*	*0.50*	*2.43*	*Cum*
	Return wall	*2*	*1.56*	*0.77*	*0.20*	*0.48*	*Cum*
		2	*1.56*	*0.67*	*0.80*	*1.67*	*Cum*
		2	*1.56*	*0.49*	*0.57*	*0.86*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	TOTAL					**27.02**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.90	6.50	0.37	*4.60*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*
	Wearing coat	*1*	*8.90*	*5.50*	*0.08*	*3.67*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*8.90*	*0.44*	*0.18*	*1.38*	*Cum*
		2	*8.90*	*0.35*	*0.25*	*1.56*	*Cum*
		2	*8.90*	*0.22*	*0.55*	*2.14*	*Cum*
	TOTAL					**27.01**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*36*	*2.36*		*1.578*	*134.1*	*Kg*
a2	*10*	*10*	*6.90*		*0.616*	*42.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.28*		*0.616*	*32.3*	*Kg*
a5	*10*	*7*	*6.80*		*0.616*	*29.3*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*32*	*2.32*		*0.888*	*65.9*	*Kg*
x2	*16*	*32*	*1.27*		*1.578*	*64.3*	*Kg*
x3	*10*	*24*	*1.80*		*0.616*	*26.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*27.0*	*0.0025*	*0.068*	*7850.00*	*530.19*	*Kg*
	Total Reinforcement Steel (in kg)					*2618.2*	*Kg*
	Total Weight in Metric Tonne					**2.62**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.93*		*0.20*	*2.37*	*Sqm*
		2		*1.11*	*0.20*	*0.44*	*Sqm*
		2	*5.93*		*0.80*	*9.48*	*Sqm*
		2		*1.06*	*0.80*	*1.70*	*Sqm*
		2	*5.93*		*0.30*	*3.56*	*Sqm*
		2		*0.87*	*0.30*	*0.52*	*Sqm*
		2	*5.93*		*0.50*	*5.93*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.77*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.67*	*0.80*	*1.07*	*Sqm*
		2	*1.56*		*0.57*	*1.77*	*Sqm*
		2		*0.49*	*0.57*	*0.55*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.93*		*0.20*	*2.37*	*Sqm*
		2		*1.11*	*0.20*	*0.44*	*Sqm*
		2	*5.93*		*0.80*	*9.48*	*Sqm*
		2		*1.06*	*0.80*	*1.70*	*Sqm*
		2	*5.93*		*0.30*	*3.56*	*Sqm*
		2		*0.87*	*0.30*	*0.52*	*Sqm*
		2	*5.93*		*0.50*	*5.93*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.77*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.67*	*0.80*	*1.07*	*Sqm*
		2	*1.56*		*0.57*	*1.77*	*Sqm*
		2		*0.49*	*0.57*	*0.55*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*1.90*		*0.37*	*1.42*	*Sqm*
		1	*1.90*	6.50		*12.35*	*Sqm*
		2		*6.50*	0.37	*4.84*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*8.90*		*0.18*	*6.23*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.90*		*0.25*	*8.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.90*		*0.55*	*19.58*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**176.41**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.93	0.36		*4.30*	*Cum*
	Right and left Return wall	4	2.61	0.56		*5.87*	*Cum*
	Below Approach Slab	*1*	*5.93*	*2.597*	*1.48*	*22.78*	*Cum*
	Extra slope	*1*	*8.839*	*0.7355*	*1.471*	*9.56*	*Cum*
		1	*8.839*	*0.7355*	*1.471*	*9.56*	*Cum*
	TOTAL					**52.08**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR RAMPUR MINOR-2						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.036						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.19*	*1.75*	*1.28*	*9.76*	*Cum*
		1	*5.30*	*2.09*	*1.28*	*14.10*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.50*	*0.64*	*1.28*	*6.09*	*Cum*
	Left abutment	*2*	*2.19*	*2.09*	*1.28*	*11.66*	*Cum*
		1	*5.30*	*2.09*	*1.28*	*14.10*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.50*	*0.64*	*1.28*	*6.09*	*Cum*
	TOTAL					**61.81**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.45*	*0.20*	*1.09*	*Cum*
		1	*5.00*	*1.79*	*0.20*	*1.79*	*Cum*
	Left abutment	*2*	*1.89*	*1.45*	*0.20*	*1.09*	*Cum*
		1	*5.00*	*1.79*	*0.20*	*1.79*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.70**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.00*	*1.59*	*0.20*	*1.59*	*Cum*
		1	*5.00*	*1.39*	*0.80*	*5.54*	*Cum*
		1	*5.00*	*0.90*	*0.55*	*2.48*	*Cum*
		1	*5.00*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.79*	*1.25*	*0.20*	*0.89*	*Cum*
		2	*1.79*	*1.10*	*0.80*	*3.14*	*Cum*
		2	*1.79*	*0.57*	*0.82*	*1.68*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.00*	*1.59*	*0.20*	*1.59*	*Cum*
		1	*5.00*	*1.39*	*0.80*	*5.54*	*Cum*
		1	*5.00*	*0.90*	*0.55*	*2.48*	*Cum*
		1	*5.00*	*0.82*	*0.50*	*2.05*	*Cum*
	Return wall	*2*	*1.79*	*1.25*	*0.20*	*0.89*	*Cum*
		2	*1.79*	*1.10*	*0.80*	*3.14*	*Cum*
		2	*1.79*	*0.57*	*0.82*	*1.68*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**35.20**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.31	5.25	0.39	*6.76*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*10.31*	*4.25*	*0.08*	*3.29*	*Cum*
	Parapet	*2*	*10.31*	*0.44*	*0.18*	*1.60*	*Cum*
		2	*10.31*	*0.35*	*0.25*	*1.81*	*Cum*
		2	*10.31*	*0.22*	*0.55*	*2.48*	*Cum*
	TOTAL					**26.97**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.77*		*1.578*	*172.5*	*Kg*
a2	*10*	*17*	*5.65*		*0.616*	*59.2*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.69*		*0.616*	*40.9*	*Kg*
a5	*10*	*12*	*5.55*		*0.616*	*41.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*54*	*2.32*		*0.888*	*111.3*	*Kg*
x2	*16*	*54*	*1.30*		*1.578*	*110.4*	*Kg*
x3	*10*	*24*	*3.21*		*0.616*	*47.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.35*		*0.888*	*242.2*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*35.2*	*0.0025*	*0.088*	*7850.00*	*690.90*	*Kg*
	Total Reinforcement Steel (in kg)					*2761.1*	*Kg*
	Total Weight in Metric Tonne					**2.76**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.00*		*0.20*	*2.00*	*Sqm*
		2		*1.59*	*0.20*	*0.63*	*Sqm*
		2	*5.00*		*0.80*	*8.01*	*Sqm*
		2		*1.39*	*0.80*	*2.22*	*Sqm*
		2	*5.00*		*0.55*	*5.50*	*Sqm*
		2		*0.90*	*0.55*	*0.99*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.72*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.79*		*0.80*	*2.87*	*Sqm*
		2		*1.10*	*0.80*	*1.75*	*Sqm*
		2	*1.79*		*0.82*	*2.94*	*Sqm*
		2		*0.57*	*0.82*	*0.94*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.00*		*0.20*	*2.00*	*Sqm*
		2		*1.59*	*0.20*	*0.63*	*Sqm*
		2	*5.00*		*0.80*	*8.01*	*Sqm*
		2		*1.39*	*0.80*	*2.22*	*Sqm*
		2	*5.00*		*0.55*	*5.50*	*Sqm*
		2		*0.90*	*0.55*	*0.99*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.72*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.79*		*0.80*	*2.87*	*Sqm*
		2		*1.10*	*0.80*	*1.75*	*Sqm*
		2	*1.79*		*0.82*	*2.94*	*Sqm*
		2		*0.57*	*0.82*	*0.94*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.31*		*0.39*	*2.58*	*Sqm*
		1	*3.31*	5.25		*17.38*	*Sqm*
		2		*5.25*	0.39	*4.08*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.31*		*0.18*	*7.22*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.31*		*0.25*	*10.31*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.31*		*0.55*	*22.68*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**183.75**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.00	0.65		*6.53*	*Cum*
	Right and left Return wall	4	2.19	1.27		*11.17*	*Cum*
	Below Approach Slab	*1*	*5.00*	*2.597*	*1.48*	*19.23*	*Cum*
	Extra slope	*1*	*7.50*	*0.64*	*1.28*	*6.09*	*Cum*
		1	*7.50*	*0.64*	*1.28*	*6.09*	*Cum*
	TOTAL					**49.12**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.810						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.19*	*1.74*	*1.20*	*9.11*	*Cum*
		1	*5.32*	*2.07*	*1.20*	*13.23*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.50*	*0.60*	*1.20*	*5.40*	*Cum*
	Left abutment	*2*	*2.19*	*2.07*	*1.20*	*10.89*	*Cum*
		1	*5.32*	*2.07*	*1.20*	*13.23*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.50*	*0.60*	*1.20*	*5.40*	*Cum*
	TOTAL					**57.25**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.78*	*Cum*
	Left abutment	*2*	*1.89*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.78*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.66**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.02*	*1.57*	*0.20*	*1.58*	*Cum*
		1	*5.02*	*1.37*	*0.80*	*5.51*	*Cum*
		1	*5.02*	*0.90*	*0.51*	*2.31*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.79*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.09*	*0.80*	*3.10*	*Cum*
		2	*1.79*	*0.57*	*0.78*	*1.59*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.02*	*1.57*	*0.20*	*1.58*	*Cum*
		1	*5.02*	*1.37*	*0.80*	*5.51*	*Cum*
		1	*5.02*	*0.90*	*0.51*	*2.31*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.79*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.09*	*0.80*	*3.10*	*Cum*
		2	*1.79*	*0.57*	*0.78*	*1.59*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**34.49**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.81	5.25	0.39	*5.74*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.81*	*4.25*	*0.08*	*3.13*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.81*	*0.44*	*0.18*	*1.53*	*Cum*
		2	*9.81*	*0.35*	*0.25*	*1.72*	*Cum*
		2	*9.81*	*0.22*	*0.55*	*2.36*	*Cum*
	TOTAL					**25.50**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.27*		*1.578*	*149.7*	*Kg*
a2	*10*	*14*	*5.65*		*0.616*	*48.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.19*		*0.616*	*35.4*	*Kg*
a5	*10*	*10*	*5.55*		*0.616*	*34.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*46*	*2.32*		*0.888*	*94.8*	*Kg*
x2	*16*	*46*	*1.30*		*1.578*	*94.0*	*Kg*
x3	*10*	*24*	*2.71*		*0.616*	*40.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.35*		*0.888*	*242.2*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*34.5*	*0.0025*	*0.086*	*7850.00*	*676.77*	*Kg*
	Total Reinforcement Steel (in kg)					*2661.0*	*Kg*
	Total Weight in Metric Tonne					**2.66**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*5.02*		*0.80*	*8.02*	*Sqm*
		2		*1.37*	*0.80*	*2.20*	*Sqm*
		2	*5.02*		*0.51*	*5.15*	*Sqm*
		2		*0.90*	*0.51*	*0.92*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.09*	*0.80*	*1.74*	*Sqm*
		2	*1.79*		*0.78*	*2.80*	*Sqm*
		2		*0.57*	*0.78*	*0.89*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*5.02*		*0.80*	*8.02*	*Sqm*
		2		*1.37*	*0.80*	*2.20*	*Sqm*
		2	*5.02*		*0.51*	*5.15*	*Sqm*
		2		*0.90*	*0.51*	*0.92*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.09*	*0.80*	*1.74*	*Sqm*
		2	*1.79*		*0.78*	*2.80*	*Sqm*
		2		*0.57*	*0.78*	*0.89*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.81*		*0.39*	*2.19*	*Sqm*
		1	*2.81*	5.25		*14.75*	*Sqm*
		2		*5.25*	0.39	*4.08*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.81*		*0.18*	*6.87*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.81*		*0.25*	*9.81*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.81*		*0.55*	*21.58*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**177.49**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.02	0.66		*6.57*	*Cum*
	Right and left Return wall	4	2.19	1.25		*10.93*	*Cum*
	Below Approach Slab	*1*	*5.02*	*2.597*	*1.48*	*19.28*	*Cum*
	Extra slope	*1*	*7.502*	*0.6*	*1.2*	*5.40*	*Cum*
		1	*7.502*	*0.6*	*1.2*	*5.40*	*Cum*
	TOTAL					**47.57**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.600						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.16*	*1.67*	*1.35*	*9.76*	*Cum*
		1	*8.63*	*2.01*	*1.35*	*23.52*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.79*	*0.68*	*1.35*	*9.89*	*Cum*
	Left abutment	*2*	*2.16*	*2.01*	*1.35*	*11.76*	*Cum*
		1	*8.63*	*2.01*	*1.35*	*23.52*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.79*	*0.68*	*1.35*	*9.89*	*Cum*
	TOTAL					**88.33**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.86*	*1.37*	*0.20*	*1.02*	*Cum*
		1	*8.33*	*1.71*	*0.20*	*2.85*	*Cum*
	Left abutment	*2*	*1.86*	*1.37*	*0.20*	*1.02*	*Cum*
		1	*8.33*	*1.71*	*0.20*	*2.85*	*Cum*
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**12.50**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.33*	*1.51*	*0.20*	*2.52*	*Cum*
		1	*8.33*	*1.31*	*0.80*	*8.75*	*Cum*
		1	*8.33*	*0.87*	*0.30*	*2.17*	*Cum*
		1	*8.33*	*0.82*	*0.50*	*3.41*	*Cum*
	Return wall	*2*	*1.76*	*1.17*	*0.20*	*0.82*	*Cum*
		2	*1.76*	*1.02*	*0.80*	*2.87*	*Cum*
		2	*1.76*	*0.54*	*0.57*	*1.07*	*Cum*
		2	*1.76*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*8.33*	*1.51*	*0.20*	*2.52*	*Cum*
		1	*8.33*	*1.31*	*0.80*	*8.75*	*Cum*
		1	*8.33*	*0.87*	*0.30*	*2.17*	*Cum*
		1	*8.33*	*0.82*	*0.50*	*3.41*	*Cum*
	Return wall	*2*	*1.76*	*1.17*	*0.20*	*0.82*	*Cum*
		2	*1.76*	*1.02*	*0.80*	*2.87*	*Cum*
		2	*1.76*	*0.54*	*0.57*	*1.07*	*Cum*
		2	*1.76*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**43.65**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.20	8.50	0.38	*7.19*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	*0.30*	*17.85*	*Cum*
	Wearing coat	*1*	*9.20*	*7.50*	*0.08*	*5.18*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.20*	*0.44*	*0.18*	*1.43*	*Cum*
		2	*9.20*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.20*	*0.22*	*0.55*	*2.22*	*Cum*
	TOTAL					**35.48**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*2.76*		*1.578*	*200.4*	*Kg*
a2	*10*	*11*	*8.90*		*0.616*	*60.4*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*2.62*		*0.616*	*46.8*	*Kg*
a5	*10*	*8*	*8.69*		*0.616*	*42.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*36*	*2.37*		*0.888*	*75.8*	*Kg*
x2	*16*	*36*	*1.32*		*1.578*	*75.2*	*Kg*
x3	*10*	*24*	*2.10*		*0.616*	*31.1*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*43.6*	*0.0025*	*0.109*	*7850.00*	*856.61*	*Kg*
	Total Reinforcement Steel (in kg)					*3431.6*	*Kg*
	Total Weight in Metric Tonne					**3.43**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.33*		*0.20*	*3.33*	*Sqm*
		2		*1.51*	*0.20*	*0.61*	*Sqm*
		2	*8.33*		*0.80*	*13.33*	*Sqm*
		2		*1.31*	*0.80*	*2.10*	*Sqm*
		2	*8.33*		*0.30*	*5.00*	*Sqm*
		2		*0.87*	*0.30*	*0.52*	*Sqm*
		2	*8.33*		*0.50*	*8.33*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.76*		*0.20*	*0.70*	*Sqm*
		2		*1.17*	*0.20*	*0.47*	*Sqm*
		2	*1.76*		*0.80*	*2.81*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.76*		*0.57*	*2.00*	*Sqm*
		2		*0.54*	*0.57*	*0.61*	*Sqm*
		2	*1.76*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.33*		*0.20*	*3.33*	*Sqm*
		2		*1.51*	*0.20*	*0.61*	*Sqm*
		2	*8.33*		*0.80*	*13.33*	*Sqm*
		2		*1.31*	*0.80*	*2.10*	*Sqm*
		2	*8.33*		*0.30*	*5.00*	*Sqm*
		2		*0.87*	*0.30*	*0.52*	*Sqm*
		2	*8.33*		*0.50*	*8.33*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.76*		*0.20*	*0.70*	*Sqm*
		2		*1.17*	*0.20*	*0.47*	*Sqm*
		2	*1.76*		*0.80*	*2.81*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.76*		*0.57*	*2.00*	*Sqm*
		2		*0.54*	*0.57*	*0.61*	*Sqm*
		2	*1.76*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.20*		*0.38*	*1.69*	*Sqm*
		1	*2.20*	8.50		*18.70*	*Sqm*
		2		*8.50*	0.38	*6.54*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.30	*10.20*	*Sqm*
	Parapet	*4*	*9.20*		*0.18*	*6.44*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.20*		*0.25*	*9.20*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.20*		*0.55*	*20.24*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**223.66**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.33	0.53		*8.75*	*Cum*
	Right and left Return wall	4	2.16	1.01		*8.71*	*Cum*
	Below Approach Slab	*1*	*8.33*	*2.597*	*1.48*	*32.01*	*Cum*
	Extra slope	*1*	*10.786*	*0.677*	*1.354*	*9.89*	*Cum*
		1	*10.7855*	*0.677*	*1.354*	*9.89*	*Cum*
	TOTAL					**69.24**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 9.860						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.25*	*1.88*	*1.20*	*10.12*	*Cum*
		1	*6.43*	*2.20*	*1.20*	*16.95*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.67*	*1.88*	*1.20*	*19.52*	*Cum*
	Left abutment	*2*	*2.25*	*2.20*	*1.20*	*11.87*	*Cum*
		1	*6.43*	*2.20*	*1.20*	*16.95*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.67*	*0.60*	*1.20*	*6.25*	*Cum*
	TOTAL					**81.67**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.95*	*1.58*	*0.20*	*1.23*	*Cum*
		1	*6.13*	*1.90*	*0.20*	*2.33*	*Cum*
	Left abutment	*2*	*1.95*	*1.58*	*0.20*	*1.23*	*Cum*
		1	*6.13*	*1.90*	*0.20*	*2.33*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.75**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.13*	*1.70*	*0.20*	*2.08*	*Cum*
		1	*6.13*	*1.50*	*0.80*	*7.35*	*Cum*
		1	*6.13*	*0.96*	*0.93*	*5.46*	*Cum*
		1	*6.13*	*0.82*	*0.55*	*2.76*	*Cum*
	Return wall	*2*	*1.85*	*1.38*	*0.20*	*1.02*	*Cum*
		2	*1.85*	*1.19*	*0.80*	*3.53*	*Cum*
		2	*1.85*	*0.61*	*1.25*	*2.80*	*Cum*
		2	*1.85*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.13*	*1.70*	*0.20*	*2.08*	*Cum*
		1	*6.13*	*1.50*	*0.80*	*7.35*	*Cum*
		1	*6.13*	*0.96*	*0.93*	*5.46*	*Cum*
		1	*6.13*	*0.82*	*0.55*	*2.76*	*Cum*
	Return wall	*2*	*1.85*	*1.38*	*0.20*	*1.02*	*Cum*
		2	*1.85*	*1.19*	*0.80*	*3.53*	*Cum*
		2	*1.85*	*0.61*	*1.25*	*2.80*	*Cum*
		2	*1.85*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**50.45**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.46	6.50	0.42	*9.50*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*
	Wearing coat	*1*	*10.46*	*5.50*	*0.08*	*4.31*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.46*	*0.44*	*0.18*	*1.63*	*Cum*
		2	*10.46*	*0.35*	*0.25*	*1.84*	*Cum*
		2	*10.46*	*0.22*	*0.55*	*2.52*	*Cum*
	TOTAL					**33.45**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.02*		*1.578*	*291.8*	*Kg*
a2	*10*	*18*	*6.90*		*0.616*	*76.6*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*3.88*		*0.616*	*62.2*	*Kg*
a5	*10*	*14*	*6.69*		*0.616*	*57.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*58*	*2.32*		*0.888*	*119.5*	*Kg*
x2	*16*	*58*	*1.32*		*1.578*	*121.2*	*Kg*
x3	*12*	*24*	*3.36*		*0.888*	*71.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*50.45*	*0.0025*	*0.126*	*7850.00*	*990.069*	*Kg*
	Total Reinforcement Steel (in kg)					*3527.8*	*Kg*
	Total Weight in Metric Tonne					**3.53**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.13*		*0.20*	*2.45*	*Sqm*
		2		*1.70*	*0.20*	*0.68*	*Sqm*
		2	*6.13*		*0.80*	*9.80*	*Sqm*
		2		*1.50*	*0.80*	*2.40*	*Sqm*
		2	*6.13*		*0.93*	*11.38*	*Sqm*
		2		*0.96*	*0.93*	*1.78*	*Sqm*
		2	*6.13*		*0.55*	*6.74*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.85*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.85*		*0.80*	*2.96*	*Sqm*
		2		*1.19*	*0.80*	*1.91*	*Sqm*
		2	*1.85*		*1.25*	*4.62*	*Sqm*
		2		*0.61*	*1.25*	*1.52*	*Sqm*
		2	*1.85*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.13*		*0.20*	*2.45*	*Sqm*
		2		*1.70*	*0.20*	*0.68*	*Sqm*
		2	*6.13*		*0.80*	*9.80*	*Sqm*
		2		*1.50*	*0.80*	*2.40*	*Sqm*
		2	*6.13*		*0.93*	*11.38*	*Sqm*
		2		*0.96*	*0.93*	*1.78*	*Sqm*
		2	*6.13*		*0.55*	*6.74*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.85*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.85*		*0.80*	*2.96*	*Sqm*
		2		*1.19*	*0.80*	*1.91*	*Sqm*
		2	*1.85*		*1.25*	*4.62*	*Sqm*
		2		*0.61*	*1.25*	*1.52*	*Sqm*
		2	*1.85*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.46*		*0.42*	*2.92*	*Sqm*
		1	*3.46*	6.50		*22.49*	*Sqm*
		2		*6.50*	0.42	*5.49*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*10.46*		*0.18*	*7.32*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.46*		*0.25*	*10.46*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.46*		*0.55*	*23.01*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**228.54**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.13	1.14		*13.92*	*Cum*
	Right and left Return wall	4	2.25	1.76		*15.84*	*Cum*
	Below Approach slab	2	*6.13*	*2.68*	*0.76*	*24.96*	*Cum*
	Extra slope	1	*8.67*	*1.88*	*1.20*	*19.52*	*Cum*
		1	*8.67*	*0.60*	*1.20*	*6.25*	*Cum*
	TOTAL					**80.48**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR MARUKA MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.250						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.17*	*1.71*	*1.41*	*10.47*	*Cum*
		1	*5.34*	*2.04*	*1.41*	*15.44*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.52*	*0.71*	*1.41*	*7.50*	*Cum*
	Left abutment	*2*	*2.17*	*2.04*	*1.41*	*12.55*	*Cum*
		1	*5.34*	*2.04*	*1.41*	*15.44*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.52*	*0.71*	*1.41*	*7.50*	*Cum*
	TOTAL					**68.90**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.87*	*1.41*	*0.20*	*1.05*	*Cum*
		1	*5.04*	*1.74*	*0.20*	*1.76*	*Cum*
	Left abutment	*2*	*1.87*	*1.41*	*0.20*	*1.05*	*Cum*
		1	*5.04*	*1.74*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.56**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.04*	*1.54*	*0.20*	*1.56*	*Cum*
		1	*5.04*	*1.34*	*0.80*	*5.42*	*Cum*
		1	*5.04*	*0.88*	*0.42*	*1.85*	*Cum*
		1	*5.04*	*0.82*	*0.50*	*2.07*	*Cum*
	Return wall	*2*	*1.77*	*1.21*	*0.20*	*0.85*	*Cum*
		2	*1.77*	*1.06*	*0.80*	*2.99*	*Cum*
		2	*1.77*	*0.55*	*0.69*	*1.34*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.04*	*1.54*	*0.20*	*1.56*	*Cum*
		1	*5.04*	*1.34*	*0.80*	*5.42*	*Cum*
		1	*5.04*	*0.88*	*0.42*	*1.85*	*Cum*
		1	*5.04*	*0.82*	*0.50*	*2.07*	*Cum*
	Return wall	*2*	*1.77*	*1.21*	*0.20*	*0.85*	*Cum*
		2	*1.77*	*1.06*	*0.80*	*2.99*	*Cum*
		2	*1.77*	*0.55*	*0.69*	*1.34*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**32.60**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.62	5.25	0.38	*5.28*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*9.62*	*4.25*	*0.08*	*3.06*	*Cum*
	Parapet	*2*	*9.62*	*0.44*	*0.18*	*1.50*	*Cum*
		2	*9.62*	*0.35*	*0.25*	*1.69*	*Cum*
		2	*9.62*	*0.22*	*0.55*	*2.32*	*Cum*
	TOTAL					**24.87**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.08*		*1.578*	*140.7*	*Kg*
a2	*10*	*13*	*5.65*		*0.616*	*45.3*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.00*		*0.616*	*33.2*	*Kg*
a5	*10*	*9*	*5.44*		*0.616*	*30.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*42*	*2.32*		*0.888*	*86.5*	*Kg*
x2	*16*	*42*	*1.32*		*1.578*	*87.8*	*Kg*
x3	*10*	*24*	*2.52*		*0.616*	*37.2*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.6*	*0.0025*	*0.082*	*7850.00*	*639.78*	*Kg*
	Total Reinforcement Steel (in kg)					*2584.8*	*Kg*
	Total Weight in Metric Tonne					**2.58**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.04*		*0.20*	*2.02*	*Sqm*
		2		*1.54*	*0.20*	*0.62*	*Sqm*
		2	*5.04*		*0.80*	*8.07*	*Sqm*
		2		*1.34*	*0.80*	*2.15*	*Sqm*
		2	*5.04*		*0.42*	*4.19*	*Sqm*
		2		*0.88*	*0.42*	*0.73*	*Sqm*
		2	*5.04*		*0.50*	*5.04*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.21*	*0.20*	*0.48*	*Sqm*
		2	*1.77*		*0.80*	*2.84*	*Sqm*
		2		*1.06*	*0.80*	*1.69*	*Sqm*
		2	*1.77*		*0.69*	*2.43*	*Sqm*
		2		*0.55*	*0.69*	*0.76*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.04*		*0.20*	*2.02*	*Sqm*
		2		*1.54*	*0.20*	*0.62*	*Sqm*
		2	*5.04*		*0.80*	*8.07*	*Sqm*
		2		*1.34*	*0.80*	*2.15*	*Sqm*
		2	*5.04*		*0.42*	*4.19*	*Sqm*
		2		*0.88*	*0.42*	*0.73*	*Sqm*
		2	*5.04*		*0.50*	*5.04*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.21*	*0.20*	*0.48*	*Sqm*
		2	*1.77*		*0.80*	*2.84*	*Sqm*
		2		*1.06*	*0.80*	*1.69*	*Sqm*
		2	*1.77*		*0.69*	*2.43*	*Sqm*
		2		*0.55*	*0.69*	*0.76*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*2.62*		*0.38*	*2.01*	*Sqm*
		1	*2.62*	5.25		*13.73*	*Sqm*
		2		*5.25*	0.38	*4.04*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.62*		*0.18*	*6.73*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.62*		*0.25*	*9.62*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.62*		*0.55*	*21.15*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**172.06**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.04	0.58		*5.83*	*Cum*
	Right and left Return wall	4	2.17	1.13		*9.81*	*Cum*
	Below Approach Slab	*1*	*5.04*	*2.597*	*1.48*	*19.39*	*Cum*
	Extra slope	*1*	*7.52*	*0.71*	*1.413*	*7.50*	*Cum*
		1	*7.52*	*0.71*	*1.413*	*7.50*	*Cum*
	TOTAL					**50.04**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF DLR BRIDGE AT - KM 7.000						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**110.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**4.76**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.00	8.50	0.38	*3.27*	*Cum*
	Approach Slab	*2*	*3.50*	*8.50*	*0.30*	*17.85*	*Cum*
	Wearing coat	*1*	*8.00*	*7.50*	*0.08*	*4.50*	*Cum*
	Parapet	*2*	*8.00*	*0.44*	*0.18*	*1.24*	*Cum*
		2	*8.00*	*0.35*	*0.25*	*1.40*	*Cum*
		2	*8.00*	*0.22*	*0.55*	*1.93*	*Cum*
	TOTAL					**30.19**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*47*	*1.43*		*1.578*	*106.1*	*Kg*
a2	*10*	*5*	*8.88*		*0.616*	*27.4*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*30*	*1.39*		*0.616*	*25.7*	*Kg*
a5	*10*	*4*	*8.80*		*0.616*	*21.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*26*	*8.70*		*0.888*	*200.8*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*26*	*8.70*		*0.888*	*200.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*16*	*2.32*		*0.888*	*33.0*	*Kg*
x2	*16*	*16*	*1.27*		*1.578*	*32.2*	*Kg*
x3	*10*	*24*	*0.90*		*0.616*	*13.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1736.9*	*Kg*
	Total Weight in Metric Tonne					**1.74**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.00*		*0.38*	*0.77*	*Sqm*
		2		*8.50*	0.38	*6.54*	*Sqm*
	Approach Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		4		*8.50*	0.30	*10.20*	*Sqm*
	Parapet	*4*	*8.00*		*0.18*	*5.60*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.00*		*0.25*	*8.00*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.00*		*0.55*	*17.60*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**54.05**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**50.00**	**Cum**

Repair Structures
(Total Cost – Rs ₹ 3,93,620.26)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND			
DETAILED ESTIMATE FOR REPAIR STRUCTURES WORK OF DHARAMPUR SUB DY.			
Sl. No.	**Structure Type**	**Chainage In Km**	**Amount (In Rs.)**
1	SLR BRIDGE	0.274	₹ 10,635.17
2	DLR BRIDGE	0.740	₹ 33,286.13
3	C.D. WORKS (NEW)	1.900	₹ 0.00
4	SLR BRIDGE	2.480	₹ 30,210.88
5	C.D. WORKS (NEW)	3.400	₹ 0.00
6	FALL(1.372 M) (NEW)	3.650	₹ 0.00
7	C.D. WORKS (NEW)	4.250	₹ 0.00
8	SLR BRIDGE (NEW)	4.300	₹ 0.00
9	C.D. WORKS (NEW)	5.150	₹ 0.00
10	SLR BRIDGE (NEW)	5.200	₹ 0.00
11	C.D. WORKS	5.680	₹ 58,731.53
12	SLR BRIDGE	5.700	₹ 35,592.98
13	FALL(0.914M) (NEW)	5.800	₹ 0.00
14	C.D. WORKS	6.340	₹ 69,906.97
15	FALL(0.914 M) (NEW)	6.450	₹ 0.00
16	C.D. WORKS	6.740	₹ 62,390.20
17	PIPE CULVERT (NEW)	7.240	₹ 0.00
18	FALL (0.914 M) (NEW)	7.425	₹ 0.00
19	C.D. WORKS	7.460	₹ 39,433.12
20	SLR BRIDGE (NEW)	7.500	₹ 25,240.16
21	C.D. WORKS (NEW)	7.750	₹ 0.00
22	FALL (0.762 M) (NEW)	8.575	₹ 0.00
23	SLR BRIDGE (NEW)	8.600	₹ 0.00
24	FALL (0.610 M) (NEW)	9.250	₹ 0.00
25	SLR BRIDGE	9.860	₹ 27,632.38
26	FALL (1.372 M) (NEW)	9.900	₹ 0.00
27	FALL (1.067 M) (NEW)	10.825	₹ 0.00
28	FALL (0.915 M) (NEW)	11.750	₹ 0.00
Total In Rs.			**₹ 3,93,059.52**
Total In Lakhs.			**₹ 3.93**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
ABSTRACT OF COST OF REPAIRED STRUCTURES OF ANGRA BRANCH CANAL									
S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF REPAIRED STRUCTURES OF DHARAMPUR SUB DY.									
AOC FOR SLR BRIDGE (Ch.-0.274 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.95	Cum	**680.10**	1323.34	0.22	0.62	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	10.76	Sqm	**340.20**	3661.57	1.162	0.157	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	10.76	Sqm	**63.20**	680.22	0.02		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.780	Cum	**1075.00**	838.28			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	1.403	MT	**742.00**	1040.79			
		Brick (15 km lead)	972.00	No.	**3.18**	3090.96			
		TOTAL (In Rs.)				**10635.17**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.78	Cum	**584.64**	455.90	45.59		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**45.59**		
AOC FOR DLR BRIDGE (Ch.-0.740 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	180.000	Sqm	**11.80**	2124.79			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	62.280	Sqm	**340.20**	21187.66	6.726	0.909	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	62.280	Sqm	**63.20**	3936.10	0.09		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.909	Cum	**1075.00**	977.48			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	6.820	MT	**742.00**	5060.11			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**33286.13**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.91	Cum	**584.64**	531.61	53.16		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**53.16**		
AOC FOR CD WORK (Ch.-1.900 Km)									
1	**New Structure is proposed at this location.**								
AOC FOR SLR BRIDGE (Ch.-2.480 Km)									
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	220.000	Sqm	**11.80**	2596.97			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	55.190	Sqm	**340.20**	18775.64	5.960	0.806	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	55.190	Sqm	**63.20**	3488.01	0.08		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.806	Cum	**1075.00**	866.21			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	6.043	MT	**742.00**	4484.06			

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**30210.88**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.81	Cum	**584.64**	471.09	47.11		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**47.11**		
		AOC FOR CD WORK (Ch.-3.400 Km)							
1	**New Structure is proposed at this location.**								
		AOC FOR CD WORK (Ch.-4.250 Km)							
1	**New Structure is proposed at this location.**								
		AOC FOR SLR BRIDGE (Ch.-4.300 Km)							
1	**New Structure is proposed at this location.**								
		AOC FOR CD WORK (Ch.-5.150 Km)							
1	**New Structure is proposed at this location.**								
		AOC FOR SLR BRIDGE (Ch.-5.200 Km)							
1	**New Structure is proposed at this location.**								
		AOC FOR CD WORK (Ch.-5.680 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	190.000	Sqm	**11.80**	2242.83			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	112.900	Sqm	**340.20**	38408.58	12.193	1.648	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	112.900	Sqm	**63.20**	7135.28	0.17		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.648	Cum	**1075.00**	1771.97			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	12.362	MT	**742.00**	9172.87			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**58731.53**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.65	Cum	**584.64**	963.69	96.37		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**96.37**		
		AOC FOR SLR BRIDGE (Ch.-5.700 Km)							
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	4.14	Cum	**680.10**	2815.61	0.48	1.32	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	48.800	Sqm	**340.20**	16601.76	5.270	0.712	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	48.800	Sqm	**63.20**	3084.16	0.07		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	2.037	Cum	**1075.00**	2190.08			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	5.820	MT	**742.00**	4318.77			
		Brick (15 km lead)	2070.00	No.	**3.18**	6582.60			
		TOTAL (In Rs.)				**35592.98**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	2.04	Cum	**584.64**	1191.08	119.11		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**119.11**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR CD WORK (Ch.-6.340 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	280.000	Sqm	**11.80**	3305.23			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	26.720	Sqm	**2492.58**	66601.74			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**69906.97**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR FALL (Ch.-6.450 Km)							
1		**New Structure is Proposed at this location**							
		AOC FOR CD WORK (Ch.-6.740 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	150.000	Sqm	**11.80**	1770.66			
2	5.8.9	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	24.320	Sqm	**2492.58**	60619.55			
3		**Carriage of materials**							
		Coarse Sand (60 Km lead)	0.000	Cum	**1075.00**	0.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	0.000	MT	**742.00**	0.00			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**62390.20**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	0.00	Cum	**584.64**	0.00	0.00		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**0.00**		
		AOC FOR CD WORK (Ch.-7.240 Km)							
1	**New Structure is proposed.**								
		AOC FOR FALL (Ch.-7.425 Km)							
1	**New Structure is proposed.**								
		AOC FOR CD WORK (Ch.-7.460 Km)							
1	5.1.3	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	240.000	Sqm	**11.80**	2833.05			
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	73.150	Sqm	**340.20**	24885.63	7.900	1.068	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	73.150	Sqm	**63.20**	4623.08	0.11		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.068	Cum	**1075.00**	1148.09			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	8.010	MT	**742.00**	5943.27			
		Brick (15 km lead)	0.00	No.	**3.18**	0.00			
		TOTAL (In Rs.)				**39433.12**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.07	Cum	**584.64**	624.39	62.44		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**62.44**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR SLR BRIDGE (Ch.-7.500 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.38	Cum	**680.10**	938.54	0.16	0.44	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	43.000	Sqm	**340.20**	14628.60	4.644	0.628	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.	43.000	Sqm	**63.20**	2717.60	0.06		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.069	Cum	**1075.00**	1149.61			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	4.867	MT	**742.00**	3611.61			
		Brick (15 km lead)	690.00	No.	**3.18**	2194.20			
TOTAL (In Rs.)						**25240.16**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.07	Cum	**584.64**	625.21	62.52		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**62.52**		
AOC FOR CD WORK (Ch.-7.750 Km)									
1	**New Structure is proposed at this location.**								
AOC FOR FALL (Ch.-8.575 Km)									
1	**New Structure is proposed at this location.**								
AOC FOR SLR BRIDGE (Ch.-8.600 Km)									
1	**New Structure is proposed at this location.**								
AOC FOR FALL (Ch.-9.250 Km)									
1	**New Structure is proposed at this location.**								
AOC FOR SLR BRIDGE (Ch.-9.860 Km)									
1	5.4.6	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.	1.93	Cum	**680.10**	1313.95	0.22	0.62	
2	5.5.5	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	44.880	Sqm	**340.20**	15268.18	4.847	0.655	
3	5.5.10	Providing 1.5 mm thick cement punning including curing, carriage	44.280	Sqm	**63.20**	2798.50	0.07		
4		**Carriage of materials**							
		Coarse Sand (60 Km lead)	1.273	Cum	**1075.00**	1369.00			
		Coarse Aggregates (100 Km lead)	0.000	Cum	**1398.00**	0.00			
		Cement (30 km lead)	5.136	MT	**742.00**	3810.87			
		Brick (15 km lead)	966.00	No.	**3.18**	3071.88			
TOTAL (In Rs.)						**27632.38**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	1.27	Cum	**584.64**	744.53	74.45		
		Coarse Aggregate	0.00	Cum	**944.26**	0.00	0.00		
		Total					**74.45**		
1	**New Structure is proposed at this location.**								
AOC FOR FALL (Ch.-9.900 Km)									
1	**New Structure is proposed at this location.**								
AOC FOR FALL (Ch.-10.825 Km)									
1	**New Structure is proposed at this location.**								

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
		AOC FOR FALL (Ch.-11.750 Km)							
1	**New Structure is proposed at this location.**								

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF ANGRA BRANCH CANAL								
S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
DETAILS OF QUANTITIES OF REPAIRED STRUCTURES OF DHARAMPUR SUB DY.								
QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE(Ch.-0.274 Km)								
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	4.70	0.45	0.92	*1.95*	*Cum*
		TOTAL					**1.95**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	1	4.70		2.29	*10.76*	*Sqm*
		TOTAL					**10.76**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	1	4.70		2.29	*10.76*	*Sqm*
		TOTAL					**10.76**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR DLR BRIDGE (Ch.-0.740 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**180.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	6.00		2.19	*26.28*	*Sqm*
		Wing wall U/S & D/S	4	5.00		1.80	*36.00*	*Sqm*
		TOTAL					**62.28**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	6.00		2.19	*26.28*	*Sqm*
		Wing wall U/S & D/S	4	5.00		1.80	*36.00*	*Sqm*
		TOTAL					**62.28**	***Sqm***
QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-1.900 Km)								
1		**New Structure is proposed.**						
QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE (Ch.-2.480 Km)								
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**220.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
		Parapet Wall	2	5.50		2.09	*22.99*	*Sqm*
		Wing wall U/S & D/S	4	3.50		2.30	*32.20*	*Sqm*
		TOTAL					**55.19**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	5.50		2.09	*22.99*	*Sqm*
		Wing wall U/S & D/S	4	3.50		2.30	*32.20*	*Sqm*
		TOTAL					**55.19**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-3.400 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-4.250 Km)						
1		**New Structure is proposed.**						

		QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE(Ch.-4.300 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-5.150 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE (Ch.-5.200 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-5.680 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**190.00**	**Sqm**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	5.00		2.09	*20.90*	*Sqm*
		Wing wall U/S & D/S	4	10.00		2.30	*92.00*	*Sqm*
		TOTAL					**112.90**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	5.00		2.09	*20.90*	*Sqm*
		Wing wall U/S & D/S	4	10.00		2.30	*92.00*	*Sqm*
		TOTAL					**112.90**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE (Ch.-5.700 Km)						
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	2	5.00	0.45	0.92	*4.14*	*Cum*
		TOTAL					**4.14**	**Cum**

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	5.00		2.29	*22.90*	*Sqm*
		Wing Wall	4	3.50		1.85	*25.90*	*Sqm*
		TOTAL					**48.80**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	5.00		2.29	*22.90*	*Sqm*
		Wing Wall	4	3.50		1.85	*25.90*	*Sqm*
		TOTAL					**48.80**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-6.340 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**280.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Abutment	2	5.00	1.00	1.2	*12.00*	*Cum*
		Wing wall U/S & D/S	4	8.00	0.50	0.92	*14.72*	*Cum*
		TOTAL					**26.72**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-6.450 Km)						
1		**New Structure is Proposed at this location**						
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-6.740 Km)						
1	**5.1.3**	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**150.00**	**Sqm**
		TOTAL					**150.00**	**Sqm**
2	**5.8.9**	**Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.**						
		Wing wall	4	8.00	0.5	0.92	*14.72*	*Cum*
		Abutment	2	4.00	1.00	1.20	*9.60*	*Cum*
		TOTAL					**24.32**	***Cum***
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-7.240 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-7.425 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-7.460 Km)						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	5.1.3	**Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.**						
			1				**240.00**	**Sqm**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Abutment	2	3.50		2.05	*14.35*	*Sqm*
		Wing wall U/S & D/S	4	7.00		2.10	*58.80*	*Sqm*
		TOTAL					**73.15**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Abutment	2	3.50		2.05	*14.35*	*Sqm*
		Wing wall U/S & D/S	4	7.00		2.10	*58.80*	*Sqm*
		TOTAL					**73.15**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE (Ch.-7.500 Km)						
1	5.4.6	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	5.00	0.3	0.92	*1.38*	*Cum*
		TOTAL					**1.38**	**Cum**
2	5.5.5	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	5.00		2.14	*21.40*	*Sqm*
		Wing Wall	4	3.00		1.8	*21.60*	*Sqm*
		TOTAL					**43.00**	***Sqm***
3	5.5.10	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	5.00		2.14	*21.40*	*Sqm*
		Wing Wall	4	3.00		1.8	*21.60*	*Sqm*
		TOTAL					**43.00**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR CD WORKS (Ch.-7.750 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-8.575 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE (Ch.-8.600 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-9.250 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR SLR BRIDGE (Ch.-9.860 Km)						

S.No.	Reference Clause	Items	No.	Length	Width	Height	Quantity	Unit
1	**5.4.6**	**Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.**						
		Parapet Wall	1	6.00	0.35	0.92	*1.93*	*Cum*
		TOTAL					**1.93**	**Cum**
2	**5.5.5**	**Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.**						
		Parapet Wall	2	6.00		2.19	*26.28*	*Sqm*
		Wing Wall	4	3.00		1.55	*18.60*	*Sqm*
		TOTAL					**44.88**	***Sqm***
3	**5.5.10**	**Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.**						
		Parapet Wall	2	6.00		2.19	*26.28*	*Sqm*
		Wing Wall	4	3.00		1.5	*18.00*	*Sqm*
		TOTAL					**44.28**	***Sqm***
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-9.900 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-10.825 Km)						
1		**New Structure is proposed.**						
		QUANTITIES OF REPAIRING WORK FOR FALL (Ch.-11.750 Km)						
1		**New Structure is proposed.**						

Outlets
(Total Cost – Rs ₹ 1,46,88,289.04)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.8355
	Total 1+2+3= ***(B)*** =	Rs.	93698.339
4	Labour charge 30%(B) =	Rs.	28109.5017
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.5005
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80068
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75085
	Total = B+4+5+6+7 = ***C***	Rs.	155373.8927
8	Other incidental charge , **3 % = of C**	Rs.	4661.216782
	Total C+8 = D	Rs.	**160035.1095**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	**Reference**	**Name of Item**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount in Rs.**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**	**Boulders (cum)**
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				

4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				
5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
TOTAL (In Rs.)						**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	**PL MARCH 2025**
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					
		Unit: per Cum					

		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13

		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.184	

	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	

	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15%				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	

	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.147	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	

	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.41**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	

		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**

12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**

13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**

14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**

15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					

	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	

						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9

		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	Sl-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	Sl-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					

		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**

17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					

		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	SI-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	SI-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	
						3503.19	

					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	
					Say, Rs	**₹ 339.90**	**Per M^3**

22	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**
23	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	

		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
24	**5.6.2**	Labour for laying, fitting and fixing NP3 pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E/I.					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**900/ 1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**

		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	

					Say, Rs	**₹ 2,047.70**	**Per M**
25	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
26	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	

		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
27	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
28	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	

		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.52	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	**WRD SOR 2025 & PL 2025**	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	**Sqm**	**11.80**
2	**WRD SOR 2025 & PL 2025**	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	**Cum**	**156.50**
3	**WRD SOR 2025 & PL 2025**	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	**Cum**	**149.30**
4	**WRD SOR 2025 & PL 2025**	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	**Cum**	**196.10**
5	**WRD SOR 2025 & PL 2025**	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.	**Cum**	**17.22**
6	**WRD SOR 2025 & PL 2025**	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	**Cum**	**165.12**
7	**WRD SOR 2025 & PL 2025**	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	**Cum**	**61.88**

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.41**	**Cum**
9	**WRD SOR 2025 & PL 2025**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour for laying, fitting and fixing NP3 pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E/I.	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67
11	**WRD SOR 2025**	**M-066**	Elastomeric Bearing	**Cucm**	0.67

NORTH KOEL RESERVOIR PROJECT

Completion of Balance Works of North Koel Reservoir Project

ESTIMATE REPORT – BALANCE CANALS OFFTAKING FROM KONCHI DISTRIBUTARY







WAPCOS LIMITED

(GOVT. OF INDIA UNDERTAKING)

76- C SECTOR-18 INDUSTRIAL AREA,

GURUGRAM-122015 (HARYANA)

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LIST OF STRUCTURES

KONCHI DISTRIBUTARY - BALANCE LIST OF STRUCTURES			
S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
MAHIMAPUR SUB DY.			
1	CULVERT	0.585	NEW STRUCTURE
2	CD WORK	1.463	NEW STRUCTURE
3	FALL (1.220 M) MODIFIED	1.689	NEW STRUCTURE
4	FALL (1.524 M)	2.216	NEW STRUCTURE
5	DLR BRIDGE	2.604	NEW STRUCTURE
6	SLR BRIDGE	2.832	NEW STRUCTURE
7	C/R + H/R	4.000	NEW STRUCTURE
8	FALL (1.524 M) NEW	4.968	NEW STRUCTURE
9	CD WORK	5.319	NEW STRUCTURE
10	SLR BRIDGE	5.335	NEW STRUCTURE
11	SLR BRIDGE	6.250	NEW STRUCTURE
12	CULVERT / FALL (1.220 M) NEW	6.650	NEW STRUCTURE
13	FALL (0.610 M)	7.315	NEW STRUCTURE
14	FALL (0.305 M) MODIFIED	7.672	NEW STRUCTURE
15	DLR BRIDGE	7.700	NEW STRUCTURE
16	SLR BRIDGE	8.050	NEW STRUCTURE
17	SLR BRIDGE	8.571	NEW STRUCTURE
18	CD WORK	9.028	NEW STRUCTURE
19	FALL (0.610 M) NEW	9.600	NEW STRUCTURE
20	DLR BRIDGE	10.169	NEW STRUCTURE
21	CD WORK	10.698	NEW STRUCTURE
22	DLR BRIDGE	10.719	NEW STRUCTURE
23	FALL (1.220 M)	11.034	NEW STRUCTURE
24	FALL (0.914 M) NEW	11.650	NEW STRUCTURE
25	FALL (0.914 M)	11.979	NEW STRUCTURE
26	SLR BRIDGE	12.152	NEW STRUCTURE
27	DLR BRIDGE	12.700	NEW STRUCTURE
28	FALL (0.610 M) NEW	12.800	NEW STRUCTURE
29	SLR BRIDGE	13.225	NEW STRUCTURE
30	FALL (0.457 M) MODIFIED	13.868	NEW STRUCTURE

S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
DEOKULI MINOR			
1	C.D. WORKS	0.250	NEW STRUCTURE
2	FALL(0.457 M) / SLR BRIDGE NEW	1.200	NEW STRUCTURE
3	C.D. WORKS	1.210	NEW STRUCTURE
4	SLR BRIDGE	1.310	NEW STRUCTURE
5	SLR BRIDGE	2.510	NEW STRUCTURE
6	FALL (1.220 M) NEW	3.150	NEW STRUCTURE
7	SLR BRIDGE	3.290	NEW STRUCTURE
8	C.D. WORKS	3.410	NEW STRUCTURE
9	FALL (1.220 M) NEW	3.600	NEW STRUCTURE
10	C.D. WORKS	4.080	NEW STRUCTURE
11	SLR BRIDGE	4.400	NEW STRUCTURE

THAKUR BIGHA MINOR			
1	CD WORK	0.244	NEW STRUCTURE
2	SLR BRIDGE	0.366	NEW STRUCTURE
3	SLR BRIDGE	1.676	NEW STRUCTURE
4	CD WORK	1.798	NEW STRUCTURE
5	CD WORK	2.164	NEW STRUCTURE
6	FALL (0.610 M) / CULVERT	2.650	NEW STRUCTURE
7	CD WORK	2.804	NEW STRUCTURE
8	SLR BRIDGE	3.109	NEW STRUCTURE
9	CD WORK	3.324	NEW STRUCTURE
10	CD WORK	3.536	NEW STRUCTURE
11	SLR BRIDGE	4.024	NEW STRUCTURE
12	CD WORK	4.086	NEW STRUCTURE
13	CD WORK	4.267	NEW STRUCTURE
14	FALL(0.914 M) NEW	4.500	NEW STRUCTURE
15	FALL (0.610 M) / BRIDGE	4.580	NEW STRUCTURE
16	CD WORK	4.756	NEW STRUCTURE
17	FALL (0.610 M) /BRIDGE	5.830	NEW STRUCTURE

S. NO.	STRUCTURE TYPE	CHAINAGE IN KM	REMARKS
DADHPA SUB-DISTRIBUTARY			
1	C.D. WORKS	0.130	NEW STRUCTURE
2	FALL (1.928 M)	0.350	NEW STRUCTURE
3	FALL (1.830 M)	0.580	NEW STRUCTURE
4	FALL (0.305 M)	1.150	NEW STRUCTURE
5	SLR BRIDGE	1.220	NEW STRUCTURE
6	FALL (0.457 M)	1.465	NEW STRUCTURE
7	SLR BRIDGE	2.070	NEW STRUCTURE
8	FALL (1.067 M)	2.225	NEW STRUCTURE
9	SLR BRIDGE	2.900	NEW STRUCTURE
10	FALL (0.610 M) / DLR BRIDGE	3.230	NEW STRUCTURE
11	SLR BRIDGE	3.460	NEW STRUCTURE
12	FALL (0.457 M) NEW	3.650	NEW STRUCTURE
13	FALL (0.610 M)	4.200	NEW STRUCTURE
14	DLR BRIDGE	4.880	NEW STRUCTURE
15	FALL (0.765 M)	4.940	NEW STRUCTURE
16	C.D. WORKS	5.580	NEW STRUCTURE
17	FALL (0.305 M)	5.920	NEW STRUCTURE
18	SLR BRIDGE	6.040	NEW STRUCTURE
IGUNI MINOR			
1	SLR BRIDGE	0.810	NEW STRUCTURE
2	SLR BRIDGE	1.000	NEW STRUCTURE
3	FALL (1.676 M) NEW	1.350	NEW STRUCTURE
4	CD WORK	1.580	NEW STRUCTURE
GURARU SUB DISTRIBUTARY			
1	FALL 1.524 M	0.180	NEW STRUCTURE
2	FALL 1.524 M	1.000	NEW STRUCTURE
3	FALL 1.220 M	1.550	NEW STRUCTURE
4	C.D. WORKS	1.640	NEW STRUCTURE
5	C.D. WORKS	2.400	NEW STRUCTURE
6	FALL 0.914 M	2.500	NEW STRUCTURE
KONCHI MINOR			
1	FALL 1.220 M NEW	0.325	NEW STRUCTURE
2	FALL 1.220 M / SLR BRIDGE NEW	0.875	NEW STRUCTURE
3	FALL 1.520 M NEW	1.225	NEW STRUCTURE
4	FALL 1.067 M NEW	1.450	NEW STRUCTURE
5	FALL 1.220 M / DLR BRIDGE	1.725	NEW STRUCTURE

ESTIMATE

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ABSTRACT OF COST (KONCHI DISTRIBUTARY)							
S. No.	Items	Qty.	Unit	Rate	Seigniorage Charge	Amount (Rs.) including Seigniorage Charges	Reference for Rate
1	Earthwork						
	MAHIMAPUR SUB DY.	1	Job	26426338.54	0.00	₹ 2,64,26,338.54	AOC Earthwork
	DEVKULI MINOR	1	Job	15536967.73	0.00	₹ 1,55,36,967.73	
	THAKUR BIGHA MINOR	1	Job	8154930.40	0.00	₹ 81,54,930.40	
	DADHPA SUB DY	1	Job	16740453.84	0.00	₹ 1,67,40,453.84	
	IGUNI MINOR	1	Job	4011461.80	0.00	₹ 40,11,461.80	
	KONCHI MINOR	1	Job	7135585.87	0.00	₹ 71,35,585.87	
	GURARU SUB DY.	1	Job	6018790.67	0.00	₹ 60,18,790.67	
2	Falls						
	MAHIMAPUR SUB DY.						
	1.220 m Fall at Ch. 1.689 Km	1	No.	1366330.42	12141.52	₹ 13,78,471.95	Fall (AOC) Mahimapur Sub Dy
	1.524 m Fall at Ch. 2.216 Km	1	No.	1435917.28	13279.73	₹ 14,49,197.01	
	1.524 m Fall at Ch. 4.968 Km	1	No.	1436007.58	13279.73	₹ 14,49,287.31	
	1.220 m Fall/Culvert at Ch. 6.650 Km	1	No.	1410831.77	11954.11	₹ 14,22,785.88	
	0.610 m Fall at Ch. 7.315 Km	1	No.	677119.82	5697.24	₹ 6,82,817.06	
	0.305 m Fall at Ch.7.672 Km	1	No.	608966.05	5275.77	₹ 6,14,241.82	
	0.610 m Fall at Ch. 9.600 Km	1	No.	602701.84	5090.32	₹ 6,07,792.16	
	1.220 m Fall at Ch. 11.034 Km	1	No.	715099.84	6085.02	₹ 7,21,184.86	
	0.914 m Fall at Ch. 11.650 Km	1	No.	519871.35	4388.78	₹ 5,24,260.13	
	0.914 m Fall at Ch. 11.979 Km	1	No.	536341.50	4473.29	₹ 5,40,814.79	
	0.610 m Fall at Ch.12.800 Km	1	No.	454632.50	3752.81	₹ 4,58,385.31	
	0.457 m Fall at Ch. 13.868 Km	1	No.	369619.01	3049.78	₹ 3,72,668.79	
	DEOKULI MINOR						
	0.457 m Fall cum Bridge at Ch. 1.200 Km	1	No.	984602.73	8330.45	₹ 9,92,933.18	Fall (AOC) Deokuli Minor
	1.220 m Fall at Ch. 3.150 Km	1	No.	522665.06	4366.36	₹ 5,27,031.42	
	1.220 m Fall at Ch. 3.600 Km	1	No.	523435.61	4366.36	₹ 5,27,801.96	
	THAKUR BIGHA MINOR						
	0.610 m Fall/Culvert at Ch. 2.650 Km	1	No.	865861.36	7152.74	₹ 8,73,014.11	Fall (AOC) Thakur Bigha Minor
	0.914 m Fall at Ch. 4.500 Km	1	No.	516197.08	4320.15	₹ 5,20,517.23	
	0.610 m Fall/Culvert at Ch. 4.580 Km	1	No.	454632.50	3752.81	₹ 4,58,385.31	
	0.610 m Fall/Culvert at Ch. 5.830 Km	1	No.	453781.15	3752.81	₹ 4,57,533.96	
	DADHPA SUB DY						
	1.928 m Fall at Ch. 0.350 Km	1	No.	1374241.97	12004.21	₹ 13,86,246.17	Fall (AOC) Dadhpa Sub Dy
	1.830 m Fall at Ch.0.580 Km	1	No.	1374241.97	12004.21	₹ 13,86,246.17	
	0.305 m Fall at Ch.1.150 Km	1	No.	648451.36	5664.17	₹ 6,54,115.52	
	0.457 m Fall at Ch.1.465 Km	1	No.	573342.73	4887.36	₹ 5,78,230.09	
	1.067 m Fall at Ch.2.225 Km	1	No.	660169.41	5549.15	₹ 6,65,718.56	
	0.610 m Fall cum Bridge at Ch.3.230 Km	1	No.	1353981.55	11701.39	₹ 13,65,682.94	
	0.457 m Fall at Ch.3.650 Km	1	No.	445575.62	3761.65	₹ 4,49,337.28	
	0.610 m Fall at Ch.4.200 Km	1	No.	597959.49	5090.32	₹ 6,03,049.81	
	0.765 m Fall at Ch.4.940 Km	1	No.	635453.77	5365.46	₹ 6,40,819.23	
	0.305 m Fall at Ch.5.920 Km	1	No.	462453.48	3853.30	₹ 4,66,306.79	
	IGUNI MINOR						
	1.676 m Fall at Ch. 1.350 Km	1	No.	749992.23	6278.55	₹ 7,56,270.78	Fall (AOC) Iguni Minor
	GURARU SUB DY						
	1.524 m Fall at Ch. 0.180 Km	1	No.	1307884.60	11350.67	₹ 13,19,235.27	Fall (AOC) Guraru Sub Dy
	1.524 m Fall at Ch. 1.000 Km	1	No.	1306924.12	11350.67	₹ 13,18,274.79	
	1.220 m Fall at Ch. 1.550 Km	1	No.	1077584.94	9407.31	₹ 10,86,992.24	
	0.914 m Fall at Ch. 2.500 Km	1	No.	695584.90	5956.79	₹ 7,01,541.69	
	KONCHI MINOR						
	1.220 m Fall at Ch. 0.325 Km	1	No.	508915.93	4214.93	₹ 5,13,130.86	Fall (AOC) Konchi Minor
	1.220 m Fall cum Bridge at Ch. 0.875 Km	1	No.	919524.21	7739.22	₹ 9,27,263.42	
	1.524 m Fall at Ch. 1.225 Km	1	No.	665863.90	5559.52	₹ 6,71,423.42	
	1.067 m Fall at Ch. 1.450 Km	1	No.	470310.19	3898.86	₹ 4,74,209.05	

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charge	Amount (Rs.) including Seigniorage Charges	Reference for Rate
	1.220 m Fall cum Bridge at Ch. 1.725 Km	1	No.	1177289.41	10037.45	₹ 11,87,326.86	
3	*Cross Drainage Works*						
	MAHIMAPUR SUB DY						
	At Km 1.463	1	No.	2084482.07	17387.23	₹ 21,01,869.30	CD Work (AOC) Mahimapur Sub Dy
	At Km 5.319	1	No.	1880903.60	15767.07	₹ 18,96,670.68	
	At Km 9.028	1	No.	1210515.71	10226.18	₹ 12,20,741.89	
	At Km 10.698	1	No.	1225700.20	10610.54	₹ 12,36,310.74	
	DEOKULI MINOR						
	At Km 0.250	1	No.	1690953.72	13285.90	₹ 17,04,239.61	CD Work (AOC) Deokuli Minor
	At Km 1.210	1	No.	1690976.59	13285.90	₹ 17,04,262.49	
	At Km 3.410	1	No.	1301736.40	11383.20	₹ 13,13,119.60	
	At Km 4.080	1	No.	1812396.51	14329.78	₹ 18,26,726.29	
	THAKUR BIGHA MINOR						
	At Km 0.244	1	No.	1907396.10	15980.44	₹ 19,23,376.54	CD Work (AOC) Thakur Bigha Minor
	At Km 1.798	1	No.	1902423.79	15919.76	₹ 19,18,343.56	
	At Km 2.164	1	No.	1151328.01	9812.35	₹ 11,61,140.37	
	At Km 2.804	1	No.	1633777.38	14050.57	₹ 16,47,827.94	
	At Km 3.324	1	No.	1422223.51	12428.29	₹ 14,34,651.81	
	At Km 3.536	1	No.	1613914.94	13151.01	₹ 16,27,065.94	
	At Km 4.086	1	No.	1308451.89	11087.55	₹ 13,19,539.45	
	At Km 4.267	1	No.	1696698.50	14461.63	₹ 17,11,160.14	
	At Km 4.756	1	No.	1068786.48	8877.21	₹ 10,77,663.69	
	DADHPA SUB DY						
	At Km 0.130	1	No.	1408372.62	11965.66	₹ 14,20,338.28	CD Work (AOC) Dadhpa Sub Dy
	At Km 5.580	1	No.	1404510.65	11965.66	₹ 14,16,476.31	
	IGUNI MINOR						
	At Ch. 1.580 Km	1	No.	1424168.55	12361.58	₹ 14,36,530.14	
	GURARU SUB DY						
	At Km 1.640	1	No.	1627617.14	14425.76	₹ 16,42,042.89	CD Work (AOC) Guraru Sub Dy
	At Km 2.400	1	No.	1623122.75	13067.67	₹ 16,36,190.42	
4	*Slab Bridge*						
	MAHIMAPUR SUB DY.						
	At Km 0.585	1	No.	1546529.83	7743.23	₹ 15,54,273.06	Slab (AOC) Mahimapur Sub Dy
	At Km 2.604	1	No.	1887500.26	10532.50	₹ 18,98,032.76	
	At Km 2.832	1	No.	1536443.12	7683.69	₹ 15,44,126.80	
	At Km 5.335	1	No.	1580276.69	8560.58	₹ 15,88,837.27	
	At Km 6.250	1	No.	1750029.70	9137.87	₹ 17,59,167.56	
	At Km 7.700	1	No.	2077010.55	10527.51	₹ 20,87,538.06	
	At Km 8.050	1	No.	2035278.33	10527.51	₹ 20,45,805.84	
	At Km 8.571	1	No.	1368850.66	7024.74	₹ 13,75,875.40	
	At Km 10.169	1	No.	2069857.59	10929.16	₹ 20,80,786.74	
	At Km 10.719	1	No.	2060599.90	10359.74	₹ 20,70,959.64	
	At Km 12.152	1	No.	1424325.83	6735.75	₹ 14,31,061.58	
	At Km 12.700	1	No.	1832264.88	8816.60	₹ 18,41,081.48	
	At Km 13.225	1	No.	1419543.44	6691.87	₹ 14,26,235.31	
	DEOKULI MINOR						
	At Km 1.310	1	No.	1090805.59	6419.90	₹ 10,97,225.50	Slab (AOC) Deokuli Minor
	At Km 2.510	1	No.	1345536.16	6828.00	₹ 13,52,364.16	
	At Km 3.290	1	No.	1345013.93	6828.00	₹ 13,51,841.93	
	At Km 4.400	1	No.	1246026.35	6178.36	₹ 12,52,204.71	
	THAKUR BIGHA MINOR						
	At Km 0.366	1	No.	1114430.06	5401.12	₹ 11,19,831.17	Slab (AOC) Thakur Bigha
	At Km 1.676	1	No.	1117359.26	5401.12	₹ 11,22,760.37	
	At Km 3.109	1	No.	1345013.93	6828.00	₹ 13,51,841.93	
	At Km 4.024	1	No.	1305561.29	6692.15	₹ 13,12,253.44	
	DADHPA SUB DY						

S. No.	Items	Qty.	Unit	Rate	Seigniorage Charge	Amount (Rs.) including Seigniorage Charges	Reference for Rate
	At Km 1.220	1	No.	1933876.12	10569.17	₹ 19,44,445.29	Slab (AOC) Dadhpa Sub DY
	At Km 2.070	1	No.	1930308.79	10569.17	₹ 19,40,877.95	
	At Km 2.900	1	No.	1652603.93	8512.07	₹ 16,61,116.00	
	At Km 3.460	1	No.	1089649.04	6419.90	₹ 10,96,068.94	
	At Km 4.878	1	No.	1916914.34	9666.44	₹ 19,26,580.78	
	At Km 6.040	1	No.	683016.31	1462.67	₹ 6,84,478.98	
	IGUNI MINOR						
	At Km 0.810	1	No.	1053936.61	5147.00	₹ 10,59,083.62	Slab (AOC) Iguni Minor
	At Km 1.00	1	No.	1050540.13	5147.00	₹ 10,55,687.13	
5	*Cross Regulator and Head Regulator at Km 4.00 OF MAHIMAPUR SUB DY.*	1	No.	5496079.96	40845.01	₹ 55,36,924.97	HR/CR (AOC) Mahimapur Sub Dy.
6	*Brick Section*	1	No.	4875739.04	12955.62	₹ 48,88,694.66	Brick Sec (AOC)
7	Outlets						
	MAHIMAPUR SUB DY.	41	No.	127744.47	1100.17	₹ 52,82,630.27	Outlet-AOC
	DEVKULI MINOR	9	No.	127744.47	1100.17	₹ 11,59,601.77	
	THAKUR BIGHA MINOR	13	No.	127744.47	1100.17	₹ 16,74,980.33	
	DADHPA SUB DY	11	No.	127744.47	1100.17	₹ 14,17,291.05	
	IGUNI MINOR	2	No.	127744.47	1100.17	₹ 2,57,689.28	
	KONCHI MINOR	2	No.	127744.47	1100.17	₹ 2,57,689.28	
	GURARU SUB DY.	10	No.	127744.47	1100.17	₹ 12,88,446.41	
8	Kilometer Stone	45	No.	3853.40		₹ 1,73,403.00	Rates
	TOTAL (In Rs.)					**216101156.56**	
	TOTAL (In Lacs)					**2161.01**	

	Carriage of Materials Abstract		
1	Steel & Cement (30 Km)	M.T.	**742.00**
2	RCC Hume Pipe (30 Km)	Per Meter	
	150 mm dia	Per Meter	**82.00**
	600 mm dia	Per Meter	**919.00**
	1000 mm dia	Per Meter	**1470.00**
	1200 mm dia	Per Meter	**1838.00**
3	Bricks (15 Km)	Per 1000 no	**3.18**
4	Boulder (60 Km)	Cumecs	**1159.0**
5	Coarse Sand (60 Km)	Cumecs	**1075.00**
6	Stone Chips/Aggregate (100 Km)	Cumecs	**1398.0**

CARRIAGE OF MATERIAL BY TIPPER OF 18 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P																		
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 18 cum x Xa_1	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 18 cum capacity (Tipper capacity 18 Cum x H)			Lead in KM			Carriage of Cost =[(18Hsa.Ls+18Hua.Lu+18Hka.Lk)+18 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$18X_a$	H_{Sa}	H_{ua}	H_{ka}	$18H_{Sa}$	$18H_{Ua}$	$18H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Boulder (60 Kms)	M^3	18	0.80	14.4	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	50	10	0	16695	1159.00
2	Stone Aggregate (100 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	90	10	0	23247	1398.00
3	Sand (60 Kms)	M^3	18	0.924	16.63	6507.00	9.10	11.10	22.20	163.80	199.80	399.60	45	10	5	17874	1075.00

CARRIAGE OF MATERIAL BY TIPPER OF 25 TONNES CAPACITY INCLUDING OVER HEAD CHARGES & C.P																	
Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 25 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 8 tonne capacity (Tipper capacity 8x H)			Lead in KM			Carriage of Cost =[(25Hsa.Ls+25Hua.Lu+25Hka.Lk)+25 X_a	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$25X_b$	H_{Sb}	Hub	H_{Kb}	$25H_{Sb}$	$25H_{Ub}$	$25H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**Cement & Steel (30 Kms)**	M.T	25	1	25	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	20	10	0	18550	742.00
2	**Brick ($9^{3/4}$x$4^{3/4}$x$2^{3/4}$) (15 Kms)**	Per % 0	5000	1	5000	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	10	5	0	15900	3180.00
3	**R.C.C hume, A.C. pipe (30 Km)**																
a	**150 mm dia**	mtr	225	1	225	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	82.00
b	**500 mm & 600 mm dia**	mtr	20	1	20	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	919.00
c	**900mm & 1000 mm dia**	mtr	12.5	1	12.5	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1470.00
d	**1100 & 1200 m dia**	mtr	10	1	10	13250.00	6.60	8.00	16.00	165.00	200.00	400.00	25	5	0	18375	1838.00

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

CONCRETE MIX RATIO TABLE

Sl. No.	Mixes	Unit by Volume (Cum)	Crushed Aggregate			
			Cement (bags of 50 kg)	Sand (Cum)	Coarse Aggregate (Cum)	Boulder (Cum)
1	M -10 (1:3:6)	1.00	4.49	0.47	0.94	
2	M -15 (1:2:4)	1.00	6.48	0.45	0.90	
3	M -20 (1:1.5:3)	1.00	8.25	0.43	0.86	
4	M -25 (1:1:2)	1.00	11.34	0.39	0.79	
5	M-30 (1:0.75:1.5)	1.00	13.96	0.36	0.73	
6	RR Masonary (1:4)	1.00	2.880	0.40		1.00
7	Brick Work (1:4)	1.00	2.304	0.320		
8	Cement Plaster (1:4)	1.00	0.108	0.015		
9	Cement Punning	1.00	0.0015			

Earthwork
(Total Cost – Rs ₹ 8,40,24,528.85)

DETAIL QUANTITIES OF EARTHWORK
MAHIMAPUR SUB DY. (0.000 TO 14.635 KM)

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
0		0.000	0	0	0.000	0	0.000
100	100	6.635	3.318	331.750	13.366	6.683	668.300
200	100	6.789	6.712	671.200	8.266	10.816	1081.600
300	100	6.417	6.603	660.300	5.063	6.665	666.450
400	100	6.630	6.524	652.350	5.719	5.391	539.100
500	100	5.163	5.897	589.650	5.446	5.583	558.250
600	100	5.001	5.082	508.200	7.924	6.685	668.500
700	100	2.035	3.518	351.800	9.361	8.643	864.250
800	100	1.744	1.890	188.950	7.105	8.233	823.300
900	100	1.702	1.723	172.300	8.037	7.571	757.100
1000	100	1.223	1.463	146.250	9.246	8.642	864.150
1100	100	1.217	1.220	122.000	7.069	8.158	815.750
1200	100	1.259	1.238	123.800	6.195	6.632	663.200
1300	100	0.851	1.055	105.500	5.198	5.697	569.650
1400	100	1.213	1.032	103.200	5.494	5.346	534.600
1500	100	0.273	0.743	74.300	7.373	6.434	643.350
1600	100	0.085	0.179	17.900	7.358	7.366	736.550
1700	100	5.104	2.595	259.450	3.362	5.360	536.000
1800	100	4.526	4.815	481.500	7.052	5.207	520.700
1900	100	1.962	3.244	324.400	8.492	7.772	777.200
2000	100	1.556	1.759	175.900	9.646	9.069	906.900
2100	100	1.304	1.430	143.000	7.339	8.493	849.250
2200	100	0.000	0.652	65.200	11.374	9.357	935.650
2300	100	4.054	2.027	202.700	7.891	9.633	963.250
2400	100	1.565	2.810	280.950	10.492	9.192	919.150
2500	100	0.550	1.058	105.750	10.615	10.554	1055.350
2600	100	0.596	0.573	57.300	13.049	11.832	1183.200
2700	100	0.674	0.635	63.500	7.503	10.276	1027.600
2800	100	0.389	0.532	53.150	5.067	6.285	628.500
2900	100	0.257	0.323	32.300	5.452	5.260	525.950
3000	100	0.463	0.360	36.000	4.445	4.949	494.850
3100	100	0.079	0.271	27.100	5.683	5.064	506.400
3200	100	0.255	0.167	16.700	5.538	5.611	561.050
3300	100	0.010	0.133	13.250	9.188	7.363	736.300
3400	100	0.160	0.085	8.500	8.795	8.992	899.150
3500	100	0.129	0.145	14.450	7.662	8.229	822.850
3600	100	0.684	0.407	40.650	6.661	7.162	716.150
3700	100	0.928	0.806	80.600	6.749	6.705	670.500
3800	100	1.135	1.032	103.150	6.635	6.692	669.200
3900	100	1.428	1.282	128.150	7.358	6.997	699.650
4000	100	1.457	1.443	144.250	8.666	8.012	801.200
4100	100	11.613	6.535	653.500	3.247	5.957	595.650
4200	100	6.513	9.063	906.300	2.033	2.640	264.000

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	5.392	5.953	595.250	2.362	2.198	219.750
4400	100	3.510	4.451	445.100	3.474	2.918	291.800
4500	100	2.262	2.886	288.600	3.246	3.360	336.000
4600	100	1.766	2.014	201.400	6.448	4.847	484.700
4700	100	0.672	1.219	121.900	9.733	8.091	809.050
4800	100	0.095	0.384	38.350	8.831	9.282	928.200
4900	100	0.000	0.048	4.750	9.815	9.323	932.300
5000	100	4.485	2.243	224.250	8.310	9.063	906.250
5100	100	3.155	3.820	382.000	8.087	8.199	819.850
5200	100	2.569	2.862	286.200	3.148	5.618	561.750
5300	100	1.430	2.000	199.950	5.076	4.112	411.200
5400	100	0.801	1.116	111.550	4.543	4.810	480.950
5500	100	0.446	0.624	62.350	17.322	10.933	1093.250
5600	100	0.198	0.322	32.200	11.788	14.555	1455.500
5700	100	0.671	0.435	43.450	3.234	7.511	751.100
5800	100	1.949	1.310	131.000	3.299	3.267	326.650
5900	100	0.000	0.975	97.450	12.460	7.880	787.950
6000	100	1.289	0.645	64.450	3.970	8.215	821.500
6100	100	1.245	1.267	126.700	4.569	4.270	426.950
6200	100	1.543	1.394	139.400	3.899	4.234	423.400
6300	100	2.002	1.773	177.250	0.939	2.419	241.900
6400	100	1.664	1.833	183.300	4.791	2.865	286.500
6500	100	0.245	0.955	95.450	6.823	5.807	580.700
6600	100	0.027	0.136	13.600	5.491	6.157	615.700
6700	100	2.875	1.451	145.100	3.474	4.483	448.250
6800	100	2.150	2.513	251.250	4.279	3.877	387.650
6900	100	3.282	2.716	271.600	2.798	3.539	353.850
7000	100	1.830	2.556	255.600	4.930	3.864	386.400
7100	100	3.123	2.477	247.650	1.546	3.238	323.800
7200	100	0.553	1.838	183.800	3.473	2.510	250.950
7300	100	0.027	0.290	29.000	6.700	5.087	508.650
7400	100	0.314	0.171	17.050	2.567	4.634	463.350
7500	100	0.431	0.373	37.250	4.699	3.633	363.300
7600	100	0.587	0.509	50.900	5.747	5.223	522.300
7700	100	2.047	1.317	131.700	8.747	7.247	724.700
7800	100	0.535	1.291	129.100	2.632	5.690	568.950
7900	100	0.442	0.489	48.850	2.972	2.802	280.200
8000	100	0.367	0.405	40.450	3.692	3.332	333.200
8100	100	0.245	0.306	30.600	4.544	4.118	411.800
8200	100	0.110	0.178	17.750	4.840	4.692	469.200
8300	100	0.012	0.061	6.100	5.536	5.188	518.800
8400	100	0.007	0.010	0.950	5.339	5.438	543.750
8500	100	0.046	0.027	2.650	4.589	4.964	496.400
8600	100	0.124	0.085	8.500	4.051	4.320	432.000
8700	100	0.116	0.120	12.000	6.708	5.380	537.950

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
8800	100	0.228	0.172	17.200	5.593	6.151	615.050
8900	100	0.275	0.252	25.150	5.277	5.435	543.500
9000	100	0.807	0.541	54.100	3.206	4.242	424.150
9100	100	0.739	0.773	77.300	4.743	3.975	397.450
9200	100	0.033	0.386	38.600	6.601	5.672	567.200
9300	100	0.000	0.017	1.650	7.042	6.822	682.150
9400	100	0.000	0.000	0.000	7.001	7.022	702.150
9500	100	0.020	0.010	1.000	7.161	7.081	708.100
9600	100	0.345	0.183	18.250	7.511	7.336	733.600
9700	100	0.822	0.584	58.350	5.686	6.599	659.850
9800	100	0.638	0.730	73.000	5.792	5.739	573.900
9900	100	0.614	0.626	62.600	2.533	4.163	416.250
10000	100	0.110	0.362	36.200	3.032	2.783	278.250
10100	100	0.016	0.063	6.300	4.601	3.817	381.650
10200	100	0.000	0.008	0.800	10.702	7.652	765.150
10300	100	0.834	0.417	41.700	3.636	7.169	716.900
10400	100	0.643	0.739	73.850	3.508	3.572	357.200
10500	100	0.000	0.322	32.150	7.891	5.700	569.950
10600	100	0.000	0.000	0.000	9.764	8.828	882.750
10700	100	0.420	0.210	21.000	6.861	8.313	831.250
10800	100	0.606	0.513	51.300	3.021	4.941	494.100
10900	100	0.000	0.303	30.300	6.320	4.671	467.050
11000	100	0.000	0.000	0.000	6.461	6.391	639.050
11100	100	2.279	1.140	113.950	4.617	5.539	553.900
11200	100	1.461	1.870	187.000	11.858	8.238	823.750
11300	100	0.862	1.162	116.150	3.896	7.877	787.700
11400	100	0.834	0.848	84.800	2.701	3.299	329.850
11500	100	0.095	0.465	46.450	3.060	2.881	288.050
11600	100	0.016	0.056	5.550	4.080	3.570	357.000
11700	100	0.830	0.423	42.300	2.026	3.053	305.300
11800	100	0.066	0.448	44.800	5.921	3.974	397.350
11900	100	0.000	0.033	3.300	14.007	9.964	996.400
12000	100	1.025	0.513	51.250	4.972	9.490	948.950
12100	100	3.273	2.149	214.900	1.057	3.015	301.450
12200	100	0.340	1.807	180.650	3.577	2.317	231.700
12300	100	0.137	0.239	23.850	3.083	3.330	333.000
12400	100	0.056	0.097	9.650	4.433	3.758	375.800
12500	100	0.137	0.097	9.650	3.875	4.154	415.400
12600	100	0.000	0.069	6.850	5.114	4.495	449.450
12700	100	0.000	0.000	0.000	6.049	5.582	558.150
12800	100	0.494	0.247	24.700	4.445	5.247	524.700
12900	100	0.304	0.399	39.900	5.287	4.866	486.600
13000	100	0.250	0.277	27.700	7.535	6.411	641.100
13100	100	0.065	0.158	15.750	7.186	7.361	736.050
13200	100	0.031	0.048	4.800	6.822	7.004	700.400

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
13300	100	0.026	0.029	2.850	6.838	6.830	683.000
13400	100	0.000	0.013	1.300	5.662	6.250	625.000
13500	100	0.255	0.128	12.750	4.848	5.255	525.500
13600	100	0.143	0.199	19.900	6.015	5.432	543.150
13700	100	0.475	0.309	30.900	1.831	3.923	392.300
13800	100	0.290	0.383	38.250	4.056	2.944	294.350
13900	100	0.686	0.488	48.800	5.688	4.872	487.200
14000	100	0.492	0.589	58.900	4.213	4.951	495.050
14100	100	0.189	0.341	34.050	3.890	4.052	405.150
14200	100	0.041	0.115	11.500	4.569	4.230	422.950
14300	100	0.145	0.093	9.300	5.663	5.116	511.600
14400	100	0.214	0.180	17.950	5.323	5.493	549.300
14500	100	0.165	0.190	18.950	5.850	5.587	558.650
14600	100	0.476	0.321	32.050	2.070	3.960	396.000
14635	35	0.318	0.397	13.895	2.557	2.314	80.973
Total				**25546.995**			**65956.973**
						Earthwork in Cutting	**25547.00**
						Earthwork in Filling	**65956.97**
						Net quantity of Earthwork	**40409.98**

Chainge	Length	Earthwork in Cutting			Earthwork in filling		
		Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK							
DEOKULI MINOR (0.000 TO 4.100 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.026	0.013	1.300	12.584	6.292	629.200
200	100	0.011	0.019	1.850	12.502	12.543	1254.300
300	100	0.000	0.006	0.550	12.706	12.604	1260.400
400	100	0.000	0.000	0.000	12.876	12.791	1279.100
500	100	0.000	0.000	0.000	13.030	12.953	1295.300
600	100	0.000	0.000	0.000	13.318	13.174	1317.400
700	100	0.000	0.000	0.000	12.807	13.063	1306.250
800	100	0.000	0.000	0.000	12.996	12.902	1290.150
900	100	0.000	0.000	0.000	12.930	12.963	1296.300
1000	100	0.000	0.000	0.000	12.874	12.902	1290.200
1100	100	0.000	0.000	0.000	12.296	12.585	1258.500
1200	100	0.948	0.474	47.400	5.318	8.807	880.700
1300	100	0.550	0.749	74.900	7.424	6.371	637.100
1400	100	0.145	0.348	34.750	10.469	8.947	894.650
1500	100	0.169	0.157	15.700	10.134	10.302	1030.150
1600	100	0.122	0.146	14.550	8.970	9.552	955.200
1700	100	0.173	0.148	14.750	10.325	9.648	964.750
1800	100	0.156	0.165	16.450	10.662	10.494	1049.350
1900	100	0.075	0.116	11.550	11.272	10.967	1096.700
2000	100	0.011	0.043	4.300	11.365	11.319	1131.850
2100	100	0.000	0.006	0.550	12.159	11.762	1176.200
2200	100	0.000	0.000	0.000	12.461	12.310	1231.000
2300	100	0.000	0.000	0.000	11.523	11.992	1199.200
2400	100	0.000	0.000	0.000	12.690	12.107	1210.650
2500	100	0.005	0.003	0.250	11.446	12.068	1206.800
2600	100	0.020	0.013	1.250	11.379	11.413	1141.250
2700	100	0.069	0.045	4.450	9.359	10.369	1036.900
2800	100	0.000	0.035	3.450	10.677	10.018	1001.800
2900	100	0.000	0.000	0.000	12.229	11.453	1145.300
3000	100	0.000	0.000	0.000	14.127	13.178	1317.800
3100	100	0.000	0.000	0.000	15.805	14.966	1496.600
3200	100	1.030	0.515	51.500	3.389	9.597	959.700
3300	100	0.353	0.692	69.150	6.420	4.905	490.450
3400	100	0.096	0.225	22.450	8.738	7.579	757.900
3500	100	0.000	0.048	4.800	12.040	10.389	1038.900
3600	100	1.576	0.788	78.800	1.043	6.542	654.150
3700	100	0.583	1.080	107.950	4.728	2.886	288.550
3800	100	0.268	0.426	42.550	6.824	5.776	577.600

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
3900	100	0.239	0.254	25.350	7.056	6.940	694.000
4000	100	0.151	0.195	19.500	7.666	7.361	736.100
4100	100	0.044	0.098	9.750	9.317	8.492	849.150
Total				**8679.800**			**36327.550**
						Earthwork in Cutting	**8679.80**
						Earthwork in Filling	**36327.55**
						Net quantity of Earthwork	**27647.75**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK THAKUR BIGHA MINOR (0.000 TO 5.600 KM)							
0		0.283	0	0	33.408	0	0.000
100	100	4.295	2.289	228.900	12.094	22.751	2275.100
200	100	5.170	4.733	473.250	5.070	8.582	858.200
300	100	8.217	6.694	669.350	4.160	4.615	461.500
400	100	11.089	9.653	965.300	5.406	4.783	478.300
500	100	14.460	12.775	1277.450	2.024	3.715	371.500
600	100	16.681	15.571	1557.050	2.173	2.099	209.850
700	100	16.403	16.542	1654.200	2.448	2.311	231.050
800	100	17.016	16.710	1670.950	2.464	2.456	245.600
900	100	18.660	17.838	1783.800	3.163	2.814	281.350
1000	100	18.575	18.618	1861.750	4.914	4.039	403.850
1100	100	18.994	18.785	1878.450	4.443	4.679	467.850
1200	100	18.512	18.753	1875.300	3.911	4.177	417.700
1300	100	16.555	17.534	1753.350	2.693	3.302	330.200
1400	100	16.659	16.607	1660.700	4.257	3.475	347.500
1500	100	15.538	16.099	1609.850	4.841	4.549	454.900
1600	100	12.943	14.241	1424.050	3.277	4.059	405.900
1700	100	5.879	9.411	941.100	2.839	3.058	305.800
1800	100	5.984	5.932	593.150	4.403	3.621	362.100
1900	100	7.374	6.679	667.900	2.553	3.478	347.800
2000	100	6.576	6.975	697.500	5.415	3.984	398.400
2100	100	6.305	6.441	644.050	2.709	4.062	406.200
2200	100	6.721	6.513	651.300	3.888	3.299	329.850
2300	100	6.787	6.754	675.400	3.165	3.527	352.650
2400	100	7.849	7.318	731.800	3.848	3.507	350.650
2500	100	7.762	7.806	780.550	2.244	3.046	304.600
2600	100	8.372	8.067	806.700	4.436	3.340	334.000
2700	100	1.210	4.791	479.100	5.514	4.975	497.500
2800	100	0.000	0.605	60.500	8.321	6.918	691.750
2900	100	0.000	0.000	0.000	12.058	10.190	1018.950
3000	100	0.000	0.000	0.000	8.428	10.243	1024.300
3100	100	0.073	0.037	3.650	6.402	7.415	741.500
3200	100	1.303	0.688	68.800	7.450	6.926	692.600
3300	100	2.220	1.762	176.150	6.381	6.916	691.550
3400	100	2.184	2.202	220.200	3.486	4.934	493.350
3500	100	3.952	3.068	306.800	4.151	3.819	381.850
3600	100	4.095	4.024	402.350	4.045	4.098	409.800
3700	100	4.148	4.122	412.150	4.148	4.097	409.650
3800	100	1.881	3.015	301.450	5.505	4.827	482.650
3900	100	4.088	2.985	298.450	6.102	5.804	580.350
4000	100	0.299	2.194	219.350	8.077	7.090	708.950
4100	100	0.271	0.285	28.500	7.771	7.924	792.400
4200	100	1.446	0.859	85.850	4.599	6.185	618.500

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	1.493	1.470	146.950	5.881	5.240	524.000
4400	100	0.367	0.930	93.000	12.695	9.288	928.800
4500	100	0.430	0.399	39.850	5.037	8.866	886.600
4600	100	1.176	0.803	80.300	3.299	4.168	416.800
4700	100	0.339	0.758	75.750	5.940	4.620	461.950
4800	100	0.000	0.170	16.950	3.107	4.524	452.350
4900	100	0.024	0.012	1.200	6.657	4.882	488.200
5000	100	0.102	0.063	6.300	5.960	6.309	630.850
5100	100	0.246	0.174	17.400	4.695	5.328	532.750
5200	100	0.414	0.330	33.000	6.885	5.790	579.000
5300	100	0.459	0.437	43.650	4.617	5.751	575.100
5400	100	0.340	0.400	39.950	5.561	5.089	508.900
5500	100	0.235	0.288	28.750	6.137	5.849	584.900
5600	100	0.143	0.189	18.900	3.401	4.769	476.900
Total				**33238.400**			**30015.150**
						Earthwork in Cutting	**33238.400**
						Earthwork in Filling	**30015.150**
						Net quantity of Earthwork	**3223.25**

Chainge	Length	Earthwork in Cutting			Earthwork in filling		
		Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK DADHPA SUB DY. (0.000 TO 6.182 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	3.731	1.866	186.550	2.115	1.058	105.750
200	100	0.826	2.279	227.850	7.918	5.017	501.650
300	100	0.000	0.413	41.300	19.624	13.771	1377.100
400	100	2.376	1.188	118.800	2.792	11.208	1120.800
500	100	0.000	1.188	118.800	14.302	8.547	854.700
600	100	3.044	1.522	152.200	3.012	8.657	865.700
700	100	1.904	2.474	247.400	3.172	3.092	309.200
800	100	1.171	1.538	153.750	5.880	4.526	452.600
900	100	0.647	0.909	90.900	7.934	6.907	690.700
1000	100	0.296	0.472	47.150	9.593	8.764	876.350
1100	100	0.152	0.224	22.400	10.687	10.140	1014.000
1200	100	0.038	0.095	9.500	10.060	10.374	1037.350
1300	100	0.214	0.126	12.600	9.973	10.017	1001.650
1400	100	0.000	0.107	10.700	12.450	11.212	1121.150
1500	100	0.606	0.303	30.300	7.752	10.101	1010.100
1600	100	3.330	1.968	196.800	9.042	8.397	839.700
1700	100	0.096	1.713	171.300	10.365	9.704	970.350
1800	100	0.000	0.048	4.800	12.976	11.671	1167.050
1900	100	0.596	0.298	29.800	8.156	10.566	1056.600
2000	100	1.247	0.922	92.150	6.627	7.392	739.150
2100	100	1.631	1.439	143.900	7.580	7.104	710.350
2200	100	0.000	0.816	81.550	27.657	17.619	1761.850
2300	100	0.648	0.324	32.400	7.517	17.587	1758.700
2400	100	0.614	0.631	63.100	9.317	8.417	841.700
2500	100	0.403	0.509	50.850	10.328	9.823	982.250
2600	100	0.310	0.357	35.650	11.058	10.693	1069.300
2700	100	0.232	0.271	27.100	11.751	11.405	1140.450
2800	100	0.912	0.572	57.200	7.983	9.867	986.700
2900	100	0.535	0.724	72.350	8.001	7.992	799.200
3000	100	0.417	0.476	47.600	9.879	8.940	894.000
3100	100	0.232	0.325	32.450	11.861	10.870	1087.000
3200	100	0.000	0.116	11.600	13.983	12.922	1292.200
3300	100	0.962	0.481	48.100	7.555	10.769	1076.900
3400	100	0.623	0.793	79.250	9.206	8.381	838.050
3500	100	0.354	0.489	48.850	10.855	10.031	1003.050
3600	100	0.101	0.228	22.750	12.553	11.704	1170.400
3700	100	0.758	0.430	42.950	4.822	8.688	868.750
3800	100	0.304	0.531	53.100	7.138	5.980	598.000
3900	100	0.094	0.199	19.900	8.874	8.006	800.600
4000	100	0.219	0.157	15.650	8.812	8.843	884.300
4100	100	0.021	0.120	12.000	10.566	9.689	968.900
4200	100	0.825	0.423	42.300	4.837	7.702	770.150

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
4300	100	0.554	0.690	68.950	6.147	5.492	549.200
4400	100	0.787	0.671	67.050	5.233	5.690	569.000
4500	100	1.007	0.897	89.700	4.223	4.728	472.800
4600	100	0.418	0.713	71.250	7.343	5.783	578.300
4700	100	0.000	0.209	20.900	7.770	7.557	755.650
4800	100	0.000	0.000	0.000	6.939	7.355	735.450
4900	100	0.021	0.011	1.050	8.409	7.674	767.400
5000	100	1.174	0.598	59.750	2.591	5.500	550.000
5100	100	1.118	1.146	114.600	2.808	2.700	269.950
5200	100	0.383	0.751	75.050	5.123	3.966	396.550
5300	100	0.242	0.313	31.250	4.732	4.928	492.750
5400	100	0.232	0.237	23.700	6.215	5.474	547.350
5500	100	0.388	0.310	31.000	3.621	4.918	491.800
5600	100	0.355	0.372	37.150	6.844	5.233	523.250
5700	100	0.304	0.330	32.950	3.229	5.037	503.650
5800	100	0.212	0.258	25.800	3.797	3.513	351.300
5900	100	0.222	0.217	21.700	4.785	4.291	429.100
6000	100	0.541	0.382	38.150	2.851	3.818	381.800
6100	100	0.419	0.480	48.000	4.465	3.658	365.800
6150	50	0.310	0.365	18.225	5.312	4.889	244.425
6182	32	0.131	0.221	7.056	6.971	6.142	196.528
Total				**11888.931**			**40586.503**
						TOTAL QUANTITY OF EARTHWORK IN EXCAVATION	**11888.931**
						TOTAL QUANTITY OF EARTHWORK IN BACKFILLING	**40586.503**
						NET QUANTITY OF EARTHWORK	**28697.57**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK IGUNI MINOR (0.000 TO 1.580 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.189	0.095	9.450	4.196	2.098	209.800
200	100	0.454	0.322	32.150	3.414	3.805	380.500
300	100	0.495	0.475	47.450	3.075	3.245	324.450
400	100	0.528	0.512	51.150	3.592	3.334	333.350
500	100	0.554	0.541	54.100	0.000	1.796	179.600
600	100	0.639	0.597	59.650	3.152	1.576	157.600
700	100	0.443	0.541	54.100	4.029	3.591	359.050
800	100	0.341	0.392	39.200	5.196	4.613	461.250
900	100	0.207	0.274	27.400	7.497	6.347	634.650
1000	100	0.041	0.124	12.400	5.101	6.299	629.900
1100	100	0.181	0.111	11.100	7.513	6.307	630.700
1200	100	0.000	0.091	9.050	9.620	8.567	856.650
1300	100	0.000	0.000	0.000	13.502	11.561	1156.100
1400	100	0.680	0.340	34.000	3.987	8.745	874.450
1500	100	0.098	0.389	38.900	6.332	5.160	515.950
1580	80	0.000	0.049	3.920	14.180	10.256	820.480
Total				**484.020**			**8524.480**
						Earthwork in Cutting	**484.020**
						Earthwork in Filling	**8524.480**
						Net quantity of Earthwork	**8040.460**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK KONCHI MINOR (0.000 TO 2.381 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.124	0.062	6.200	6.009	3.005	300.450
200	100	0.000	0.062	6.200	9.130	7.570	756.950
300	100	0.022	0.011	1.100	5.741	7.436	743.550
400	100	0.967	0.495	49.450	1.412	3.577	357.650
500	100	0.565	0.766	76.600	3.475	2.444	244.350
600	100	31.039	15.802	1580.200	1.880	2.678	267.750
700	100	0.000	15.520	1551.950	100.930	51.405	5140.500
800	100	0.000	0.000	0.000	7.142	54.036	5403.600
900	100	1.090	0.545	54.500	2.126	4.634	463.400
1000	100	0.628	0.859	85.900	2.579	2.353	235.250
1100	100	0.300	0.464	46.400	1.516	2.048	204.750
1200	100	0.000	0.150	15.000	8.994	5.255	525.500
1300	100	0.886	0.443	44.300	1.772	5.383	538.300
1400	100	0.000	0.443	44.300	4.995	3.384	338.350
1500	100	0.743	0.372	37.150	2.577	3.786	378.600
1600	100	0.000	0.372	37.150	16.287	9.432	943.200
1700	100	0.000	0.000	0.000	11.208	13.748	1374.750
1800	100	0.669	0.335	33.450	1.137	6.173	617.250
1900	100	0.248	0.459	45.850	4.523	2.830	283.000
2000	100	0.141	0.195	19.450	3.387	3.955	395.500
2100	100	0.085	0.113	11.300	3.973	3.680	368.000
2200	100	0.015	0.050	5.000	4.819	4.396	439.600
2300	100	0.035	0.025	2.500	5.292	5.056	505.550
2381	81	0.000	0.018	1.418	5.695	5.494	444.974
Total				**6755.368**			**18270.774**
						Earthwork in Cutting	**6755.368**
						Earthwork in Filling	**18270.774**
						Net quantity of Earthwork	**11515.406**

		Earthwork in Cutting			Earthwork in filling		
Chainge	Length	Area of Cutting	Average area of Cutting	Earth work in Cutting	Area of Filling	Average area of Filling	Earth work in Filling
m	m	sq-m	sq-m	Cum	sq-m	sq-m	Cum
DETAIL QUANTITIES OF EARTHWORK GURARU SUB DY. (0.000 TO 2.530 KM)							
0		0.000	0	0	0.000	0	0.000
100	100	0.083	0.042	4.150	9.805	4.903	490.250
200	100	1.892	0.988	98.750	4.372	7.089	708.850
300	100	1.251	1.572	157.150	4.989	4.681	468.050
400	100	0.699	0.975	97.500	5.381	5.185	518.500
500	100	1.184	0.942	94.150	4.941	5.161	516.100
600	100	1.020	1.102	110.200	2.957	3.949	394.900
700	100	0.220	0.620	62.000	6.138	4.548	454.750
800	100	0.000	0.110	11.000	10.341	8.240	823.950
900	100	0.000	0.000	0.000	15.191	12.766	1276.600
1000	100	1.988	0.994	99.400	4.120	9.656	965.550
1100	100	1.054	1.521	152.100	5.449	4.785	478.450
1200	100	0.754	0.904	90.400	3.378	4.414	441.350
1300	100	0.095	0.425	42.450	7.226	5.302	530.200
1400	100	0.000	0.048	4.750	11.369	9.298	929.750
1500	100	0.000	0.000	0.000	17.013	14.191	1419.100
1600	100	0.766	0.383	38.300	3.699	10.356	1035.600
1700	100	0.589	0.678	67.750	4.405	4.052	405.200
1800	100	0.435	0.512	51.200	5.114	4.760	475.950
1900	100	0.262	0.349	34.850	5.807	5.461	546.050
2000	100	0.203	0.233	23.250	6.426	6.117	611.650
2100	100	0.210	0.207	20.650	8.083	7.255	725.450
2200	100	0.031	0.121	12.050	9.784	8.934	893.350
2300	100	0.007	0.019	1.900	9.459	9.622	962.150
2400	100	0.000	0.004	0.350	11.662	10.561	1056.050
2530	100	2.241	1.121	112.050	4.284	7.973	797.300
Total				**7886.350**			**14925.100**
						Earthwork in Cutting	**7886.350**
						Earthwork in Filling	**14925.100**
						Net quantity of Earthwork	**7038.750**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
MAHIMAPUR SUB DY.				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 -0.400	400	16.38	6550.00	Sqm
0.400 - 4.950	4550	15.62	71071.00	Sqm
4.950 - 6.450	1500	15.09	22639.50	Sqm
6.450 - 8.600	2150	14.30	30745.00	Sqm
8.600 - 10.100	1500	13.70	20550.00	Sqm
10.100 - 10.660	560	13.27	7428.96	Sqm
10.660 - 11.750	1090	12.67	13810.30	Sqm
11.750 - 12.800	1050	12.23	12841.50	Sqm
	TOTAL		**185636.26**	**Sqm**

DEOKULI MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.700	700	13.600	9520.00	Sqm
0.700 - 2.000	1300.00	13.200	17160.00	Sqm
2.000 - 2.675	2475	12.766	31595.85	Sqm
2.675 - 4.400	1725	12.280	21183.00	Sqm
	TOTAL		**79458.85**	**Sqm**

THAKURBIGHA MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.000 - 0.200	200	13.965	2793.00	Sqm
0.200 - 1.300	1100.00	13.800	15180.00	Sqm
1.300 - 2.450	1150	13.360	15364.00	Sqm
2.450 - 4.500	2050	12.766	26170.30	Sqm
4.500 - 5.500	1000	12.700	12700.00	Sqm
5.500 - 5.600	100	12.230	1223.00	Sqm
	TOTAL		**73430.30**	**Sqm**

DADHPA SUB DY.				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.650	650	14.05	9129.25	Sqm
0.650 - 2.400	1750	13.76	24080.00	Sqm
2.400 - 3.650	1250	13.30	16625.00	Sqm
3.650 - 4.940	1290	12.50	16125.00	Sqm
4.940 - 5.450	510	12.43	6339.30	Sqm
5.450 - 6.200	750	9.60	7200.00	Sqm
	TOTAL		**79498.55**	**Sqm**

IGUNI MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.100	100	12.17	1217.00	Sqm
0.100 - 1.580	1480	12.08	17878.40	Sqm
	TOTAL		**19095.40**	**Sqm**

KONCHI MINOR				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 2.440	2440	12.070	29450.80	Sqm
	TOTAL		**29450.80**	**Sqm**

GURARU SUB DY.				
JUNGLE CLEARANCE QUANTITY				
Reaches (km)	**Length (m)**	**Width (m)**	**Quantity**	
0.00 - 0.100	100	13.165	1316.50	Sqm
0.100 - 4.250	4150.00	13.920	57768.00	Sqm
4.250 -5.925	1675	13.600	22780.00	Sqm
5.925 - 6.425	500	9.650	4825.00	Sqm
	TOTAL		**86689.50**	**Sqm**

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND						
ABSTRACT OF COST OF EARTHWORK FOR MAHIMAPUR SUB DY.						
Sl. No.	**Reference Clause no.**	**Particular**	**Quantity**	**Unit**	**Rate (in Rs.)**	**Amount in Rs.**
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	185636.26	Sqm	**11.80**	2191322.798
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	25547.00	Cum	**156.50**	3998104.718
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	10218.80	Cum	**17.22**	175942.2989
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	40409.98	Cum	**165.12**	6672332.25
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	12122.99	Cum	**174.89**	2120190.29
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	18184.49	Cum	**217.92**	3962764.03
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	10102.49	Cum	**319.14**	3224110.05

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	65956.97	Cum	**61.88**	4081572.10
TOTAL COST OF EARTHWORK (in Rs.)						**26426338.54**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**264.263**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF COST OF EARTHWORK FOR DEOKULI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	79458.85	Sqm	**11.80**	937963.2487
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	8679.80	Cum	**156.50**	1358388.7
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	3471.92	Cum	**17.22**	59777.83164
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	27647.75	Cum	**165.12**	4565084.80
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	8294.33	Cum	**174.89**	1450594.50
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	12441.49	Cum	**217.92**	2711248.96
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	6911.94	Cum	**319.14**	2205875.73

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	36327.55	Cum	**61.88**	2248033.97
TOTAL COST OF EARTHWORK (in Rs.)						**15536967.73**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**155.370**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF COST OF EARTHWORK FOR THAKUR BIGHA MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	73430.30	Sqm	**11.80**	866799.8938
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	33238.40	Cum	**156.50**	5201809.6
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	13295.36	Cum	**17.22**	228913.0486
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	0.00	Cum	**165.12**	0.00
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	0.00	Cum	**174.89**	0.00
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	0.00	Cum	**217.92**	0.00
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	0.00	Cum	**319.14**	0.00

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	30015.15	Cum	**61.88**	1857407.86
TOTAL COST OF EARTHWORK (in Rs.)						**8154930.40**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**81.549**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF COST OF EARTHWORK FOR DADHPA SUB DY.						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	79498.55	Sqm	**11.80**	938431.883
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	11888.93	Cum	**156.50**	1860617.702
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	4755.57	Cum	**17.22**	81879.13497
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	28697.57	Cum	**165.12**	4738427.16
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	8609.27	Cum	**174.89**	1505675.51
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	12913.91	Cum	**217.92**	2814198.70
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	7174.39	Cum	**319.14**	2289635.78

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	40586.50	Cum	**61.88**	2511587.97
TOTAL COST OF EARTHWORK (in Rs.)						**16740453.84**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**167.405**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF COST OF EARTHWORK FOR IGUNI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	19095.40	Sqm	**11.80**	225409.5474
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	484.02	Cum	**156.50**	75749.13
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	193.61	Cum	**17.22**	3333.448475
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	8040.46	Cum	**165.12**	1327608.28
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2412.14	Cum	**174.89**	421858.81
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	3618.21	Cum	**217.92**	788479.67
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	2010.12	Cum	**319.14**	641508.10

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	8524.48	Cum	**61.88**	527514.81
TOTAL COST OF EARTHWORK (in Rs.)						**4011461.80**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**40.115**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF COST OF EARTHWORK FOR KONCHI MINOR						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	29450.80	Sqm	**11.80**	347648.7269
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	6755.37	Cum	**156.50**	1057215.014
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	2702.15	Cum	**17.22**	46524.25414
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	11515.41	Cum	**165.12**	1901377.32
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	3454.62	Cum	**174.89**	604178.81
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	5181.93	Cum	**217.92**	1129246.77
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	2878.85	Cum	**319.14**	918756.67

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	18270.77	Cum	**61.88**	1130638.30
TOTAL COST OF EARTHWORK (in Rs.)						**7135585.87**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**71.356**

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
ABSTRACT OF COST OF EARTHWORK FOR GURARU SUB DY.						
1	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	86689.50	Sqm	**11.80**	1023316.661
2	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.				
		100% of Total Cutting for ordinary soil	7886.35	Cum	**156.50**	1234213.775
3	**5.1.22**	*Extra for wet earth all complete as per specifications and direction of E/I.*	3154.54	Cum	**17.22**	54313.33701
4	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	7038.75	Cum	**165.12**	1162209.97
5	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)				
A.	**5.1.46.1**	Lead Beyond 150 m but upto 500 m (30 % of net filling)	2111.63	Cum	**174.89**	369302.10
B.	**5.1.46.2**	Lead Beyond 500 m but upto 1 km (45% of net filling)	3167.44	Cum	**217.92**	690247.98
C.	**5.1.46.4**	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1759.69	Cum	**319.14**	561586.67

Sl. No.	Reference Clause no.	Particular	Quantity	Unit	Rate (in Rs.)	Amount in Rs.
6	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	14925.10	Cum	**61.88**	923600.18
TOTAL COST OF EARTHWORK (in Rs.)						**6018790.67**
TOTAL COST OF EARTHWORK (in Rs. Lakhs)						**60.188**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND				
DETAILS OF QUANTITIES FOR EARTH WORK FOR MAHIMAPUR SUB DY.				
S.No.	**Items**	**No.**	**Quantity**	**Unit**
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***185636.26***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	25546.995	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	10218.798	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	40409.978	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	12122.99	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	18184.49	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	10102.49	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	65956.97	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR DEOKULI MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***79458.85***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	8679.800	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	3471.92	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	27647.750	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	8294.33	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	12441.49	Cum

S.No.	Items	No.	Quantity	Unit
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	6911.94	Cum
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	36327.55	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR THAKUR BIGHA MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***73430.30***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	33238.400	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	13295.36	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	0.000	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	0.00	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	0.00	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	0.00	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	30015.15	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR DADHPA SUB DY.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***79498.55***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	11888.931	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	4755.5724	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	28697.572	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	8609.27	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	12913.91	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	7174.39	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	40586.50	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR IGUNI MR.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***19095.40***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	484.020	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	193.608	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	8040.460	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2412.14	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	3618.21	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	2010.12	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	8524.48	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR KONCHI MINOR			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***29450.80***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	6755.368	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	2702.147	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	11515.406	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	3454.62	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	5181.93	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	2878.85	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	18270.77	Cum

S.No.	Items	No.	Quantity	Unit
	DETAILS OF QUANTITIES FOR EARTH WORK FOR GURARU SUB DY.			
1	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.			
	Separate sheet attached	1	***86689.50***	***Sqm***
2	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I. **(Total Excavation) Separate sheet attached.**			
a.	100% of Total Cutting for ordinary soil	1	7886.350	Cum
3	Extra for wet earth all complete as per specifications and direction of E/I.			
	(40% of Total Cutting)	1	3154.54	Cum
4	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.			
	Excavated earth to be used for filling	1	7038.750	Cum
5	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)			
a.	Lead Beyond 150 m but upto 500 m (30 % of net filling)	1	2111.63	Cum
b.	Lead Beyond 500 m but upto 1 km (45% of net filling)	1	3167.44	Cum
c.	Lead Beyond 1.5 km but upto 2 km (25% of net filling)	1	1759.69	Cum

S.No.	Items	No.	Quantity	Unit
6	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.			
	Total quantity of filling	1	14925.10	Cum

Fall
(Total Cost – Rs ₹ 3,17,30,545.20)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF QUANTITIES OF FALLS FOR MAHIMAPUR SUB DY.								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 1.689 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	120.633	Cum	**195.20**	23547.58			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	17.66	Cum	**6381.70**	112681.57	5.72	7.95	15.89
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	93.43	Cum	**6914.20**	646022.70	38.54	40.18	80.35
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.02	Cum	**8151.40**	8322.25	0.58	0.40	0.81
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.20	MT	**73574.90**	161892.39			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	256.12	Sqm	**578.60**	148190.47			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.96	Sqm	**680.10**	8814.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	2.03	Cum	**694.61**	1406.59			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	2.03	Cum	**1237.00**	2504.93			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	2.03	Cum	**1377.70**	2789.84			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	2.03	Cum	**516.50**	1045.91			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.50	Sqm	**63.20**	789.95	0.019		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	64.10	Cum	**149.30**	9570.82			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	48.521	Cum	**1075.00**	52159.56			
	Coarse Aggregates (100 Km lead)	97.051	Cum	**1398.00**	135677.65			
	Cement (30 km lead)	44.860	MT	**742.00**	33286.19			
	Boulder (60 Km lead)	2.03	Cum	**1159.00**	2346.98			
	Brick (15 km lead)	777.00	No.	**3.18**	2470.86			
	Steel (30 Km lead)	2.20	MT	**742.00**	1632.68			
	TOTAL (In Rs.)				**1366330.42**			
	TOTAL (In Rs.)				**1366330.42**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	48.52	Cum	**584.64**	28367.04	2836.70		
	Coarse Aggregate	97.05	Cum	**944.26**	91641.61	9164.16		
	Boulders	2.03	Cum	**694.61**	1406.59	140.66		
	Total					12141.52		
	For 1 nos. fall, Total Seigniorage charges					**12141.52**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 2.216 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	147.666	Cum	**195.20**	28824.32			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	18.99	Cum	**6381.70**	121178.99	6.15	8.54	17.09
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	102.90	Cum	**6914.20**	711491.85	42.45	44.25	88.50
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.01	Cum	**8151.40**	8211.48	0.57	0.39	0.80
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.62	MT	**73574.90**	118865.91			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	285.71	Sqm	**578.60**	165309.00			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.60	Sqm	**680.10**	8569.26			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.80	Cum	**694.61**	1250.30			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.80	Cum	**1237.00**	2226.60			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.80	Cum	**1377.70**	2479.86			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.80	Cum	**516.50**	929.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.50	Sqm	**63.20**	789.84	0.019		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.72	Cum	**149.30**	6527.94			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	53.186	Cum	**1075.00**	57174.94			
	Coarse Aggregates (100 Km lead)	106.382	Cum	**1398.00**	148722.11			
	Cement (30 km lead)	49.190	MT	**742.00**	36498.75			
	Boulder (60 Km lead)	1.80	Cum	**1159.00**	2086.20			
	Brick (15 km lead)	756.00	No.	**3.18**	2404.08			
	Steel (30 Km lead)	1.62	MT	**742.00**	1198.76			
	TOTAL (In Rs.)				**1435917.28**			
	TOTAL (In Rs.)				**1435917.28**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	53.19	Cum	**584.64**	31094.66	3109.47		
	Coarse Aggregate	106.38	Cum	**944.26**	100452.32	10045.23		
	Boulders	1.80	Cum	**694.61**	1250.30	125.03		
	Total					13279.73		
	For 1 nos. fall, Total Seigniorage charges					**13279.73**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 4.968							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	146.521	Cum	**195.20**	28600.85			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	18.99	Cum	**6381.70**	121178.99	6.15	8.54	17.09
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	102.90	Cum	**6914.20**	711491.85	42.45	44.25	88.50
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	1.01	Cum	**8151.40**	8211.48	0.57	0.39	0.80
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.62	MT	**73574.90**	118865.91			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	285.71	Sqm	**578.60**	165309.00			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.60	Sqm	**680.10**	8569.26			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.80	Cum	**694.61**	1250.30			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.80	Cum	**1237.00**	2226.60			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.80	Cum	**1377.70**	2479.86			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.80	Cum	**516.50**	929.70			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.50	Sqm	**63.20**	789.84	0.019		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	45.83	Cum	**149.30**	6841.71			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	53.186	Cum	**1075.00**	57174.94			
	Coarse Aggregates (100 Km lead)	106.382	Cum	**1398.00**	148722.11			
	Cement (30 km lead)	49.190	MT	**742.00**	36498.75			
	Boulder (60 Km lead)	1.80	Cum	**1159.00**	2086.20			
	Brick (15 km lead)	756.00	No.	**3.18**	2404.08			
	Steel (30 Km lead)	1.62	MT	**742.00**	1198.76			
	TOTAL (In Rs.)				**1436007.58**			
	TOTAL (In Rs.)				**1436007.58**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	53.19	Cum	**584.64**	31094.66	3109.47		
	Coarse Aggregate	106.38	Cum	**944.26**	100452.32	10045.23		
	Boulders	1.80	Cum	**694.61**	1250.30	125.03		
	Total					13279.73		
	For 1 nos. fall, Total Seigniorage charges					**13279.73**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.6.650 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	135.180	Cum	**195.20**	26387.21			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	13.64	Cum	**6381.70**	87074.32	4.42	6.14	12.28
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	87.99	Cum	**6914.20**	608359.15	36.29	37.83	75.67
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	10.55	Cum	**8151.40**	85993.76	5.98	4.11	8.33
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.63	MT	**73574.90**	193476.02			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	261.57	Sqm	**578.60**	151345.03			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.50	Sqm	**680.10**	5098.71			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	**694.61**	510.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.74	Cum	**1237.00**	909.20			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.74	Cum	**1377.70**	1012.61			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.74	Cum	**516.50**	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.01	Sqm	**63.20**	442.87	0.011		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	15.41	Cum	**149.30**	2301.34			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	48.089	Cum	**1075.00**	51695.33			
	Coarse Aggregates (100 Km lead)	96.283	Cum	**1398.00**	134603.42			
	Cement (30 km lead)	46.707	MT	**742.00**	34656.96			
	Boulder (60 Km lead)	0.74	Cum	**1159.00**	851.87			
	Brick (15 km lead)	449.00	No.	**3.18**	1427.82			
	Steel (30 Km lead)	2.63	MT	**742.00**	1951.20			
	TOTAL (In Rs.)				**1410831.77**			
	TOTAL (In Rs.)				**1410831.77**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	48.09	Cum	**584.64**	28114.56	2811.46		
	Coarse Aggregate	96.28	Cum	**944.26**	90916.04	9091.60		
	Boulders	0.74	Cum	**694.61**	510.54	51.05		
	Total					11954.11		
	For 1 nos. fall, Total Seigniorage charges					**11954.11**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.7.315 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	128.672	Cum	**195.20**	25116.78			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.58	Cum	**6381.70**	67504.84	3.43	4.76	9.52
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.35	Cum	**6914.20**	285895.73	17.06	17.78	35.56
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.66	Cum	**8151.40**	5386.04	0.37	0.26	0.52
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.97	MT	**73574.90**	71645.07			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	155.37	Sqm	**578.60**	89897.95			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.07	Sqm	**680.10**	6169.87			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.84	Cum	**694.61**	583.47			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.84	Cum	**1237.00**	1039.08			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.84	Cum	**1377.70**	1157.27			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.84	Cum	**516.50**	433.86			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.32	Sqm	**63.20**	588.71	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.44	Cum	**149.30**	3350.79			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	22.798	Cum	**1075.00**	24507.67			
	Coarse Aggregates (100 Km lead)	45.602	Cum	**1398.00**	63751.99			
	Cement (30 km lead)	20.872	MT	**742.00**	15487.28			
	Boulder (60 Km lead)	0.84	Cum	**1159.00**	973.56			
	Brick (15 km lead)	544.00	No.	**3.18**	1729.92			
	Steel (30 Km lead)	0.97	MT	**742.00**	722.54			
	TOTAL (In Rs.)				**677119.82**			
	TOTAL (In Rs.)				**677119.82**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	22.80	Cum	**584.64**	13328.53	1332.85		
	Coarse Aggregate	45.60	Cum	**944.26**	43060.41	4306.04		
	Boulders	0.84	Cum	**694.61**	583.47	58.35		
	Total					5697.24		
	For 1 nos. fall, Total Seigniorage charges					**5697.24**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 7.672 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	57.679	Cum	**195.20**	11258.88			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.70	Cum	**6381.70**	68278.04	3.47	4.81	9.63
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.00	Cum	**6914.20**	255852.57	15.26	15.91	31.82
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.77	Cum	**8151.40**	6261.50	0.44	0.30	0.61
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64116.30			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	139.38	Sqm	**578.60**	80642.72			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.92	Sqm	**680.10**	6066.49			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	1.08	Cum	**694.61**	750.18			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	1.08	Cum	**1237.00**	1335.96			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	1.08	Cum	**1377.70**	1487.92			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	1.08	Cum	**516.50**	557.82			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	11.04	Sqm	**63.20**	697.92	0.017		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.36	Cum	**149.30**	1247.42			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.026	Cum	**1075.00**	22602.77			
	Coarse Aggregates (100 Km lead)	42.059	Cum	**1398.00**	58798.97			
	Cement (30 km lead)	19.183	MT	**742.00**	14233.57			
	Boulder (60 Km lead)	1.08	Cum	**1159.00**	1251.72			
	Brick (15 km lead)	535.00	No.	**3.18**	1701.30			
	Steel (30 Km lead)	0.87	MT	**742.00**	646.61			
	TOTAL (In Rs.)				**608966.05**			
	TOTAL (In Rs.)				**608966.05**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.03	Cum	**584.64**	12292.54	1229.25		
	Coarse Aggregate	42.06	Cum	**944.26**	39714.96	3971.50		
	Boulders	1.08	Cum	**694.61**	750.18	75.02		
	Total					5275.77		
	For 1 nos. fall, Total Seigniorage charges					**5275.77**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 9.600 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.086	Cum	**195.20**	12899.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.49	Cum	**6381.70**	60575.82	3.08	4.27	8.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.04	Cum	**6914.20**	256081.34	15.28	15.93	31.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4966.53	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64173.63			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.19	Sqm	**578.60**	82271.58			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.12	Sqm	**63.20**	576.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	42.21	Cum	**149.30**	6301.34			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.435	Cum	**1075.00**	21967.61			
	Coarse Aggregates (100 Km lead)	40.876	Cum	**1398.00**	57144.75			
	Cement (30 km lead)	18.712	MT	**742.00**	13884.57			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	647.19			
	TOTAL (In Rs.)				**602701.84**			
	TOTAL (In Rs.)				**602701.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11947.11	1194.71		
	Coarse Aggregate	40.88	Cum	**944.26**	38597.64	3859.76		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					5090.32		
	For 1 nos. fall, Total Seigniorage charges					**5090.32**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 11.034 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	67.900	Cum	**195.20**	13253.99			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.28	Cum	**6381.70**	59234.10	3.01	4.18	8.35
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.79	Cum	**6914.20**	323528.82	19.30	20.12	40.24
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4978.39	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.10	MT	**73574.90**	81075.87			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	169.85	Sqm	**578.60**	98274.85			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.24	Cum	**694.61**	164.10			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.24	Cum	**1237.00**	292.24			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.24	Cum	**1377.70**	325.48			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.24	Cum	**516.50**	122.02			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.85	Sqm	**63.20**	622.67	0.015		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	19.44	Cum	**149.30**	2902.05			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	24.536	Cum	**1075.00**	26375.73			
	Coarse Aggregates (100 Km lead)	49.077	Cum	**1398.00**	68609.97			
	Cement (30 km lead)	22.670	MT	**742.00**	16821.19			
	Boulder (60 Km lead)	0.24	Cum	**1159.00**	273.81			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	1.10	MT	**742.00**	817.65			
	TOTAL (In Rs.)				**715099.84**			
	TOTAL (In Rs.)				**715099.84**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	24.54	Cum	**584.64**	14344.47	1434.45		
	Coarse Aggregate	49.08	Cum	**944.26**	46341.67	4634.17		
	Boulders	0.24	Cum	**694.61**	164.10	16.41		
	Total					6085.02		
	For 1 nos. fall, Total Seigniorage charges					**6085.02**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.11.650 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	49.996	Cum	**195.20**	9759.26			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.13	Cum	**6381.70**	51912.79	2.64	3.66	7.32
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.08	Cum	**6914.20**	221780.46	13.23	13.79	27.59
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.55	Cum	**8151.40**	4480.99	0.31	0.21	0.43
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.76	MT	**73574.90**	55577.87			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	130.21	Sqm	**578.60**	75336.98			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.61	Sqm	**680.10**	3817.40			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.27	Cum	**694.61**	187.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.27	Cum	**1237.00**	333.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.27	Cum	**1377.70**	371.98			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.27	Cum	**516.50**	139.46			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.65	Sqm	**63.20**	546.96	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	14.02	Cum	**149.30**	2092.81			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.668	Cum	**1075.00**	18992.77			
	Coarse Aggregates (100 Km lead)	35.341	Cum	**1398.00**	49406.55			
	Cement (30 km lead)	16.192	MT	**742.00**	12014.23			
	Boulder (60 Km lead)	0.27	Cum	**1159.00**	312.93			
	Brick (15 km lead)	336.00	No.	**3.18**	1068.48			
	Steel (30 Km lead)	0.76	MT	**742.00**	560.50			
	TOTAL (In Rs.)				**519871.35**			
	TOTAL (In Rs.)				**519871.35**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.67	Cum	**584.64**	10329.24	1032.92		
	Coarse Aggregate	35.34	Cum	**944.26**	33370.98	3337.10		
	Boulders	0.27	Cum	**694.61**	187.54	18.75		
	Total					4388.78		
	For 1 nos. fall, Total Seigniorage charges					**4388.78**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.11.979 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	53.644	Cum	**195.20**	10471.25			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.24	Cum	**6381.70**	52564.98	2.67	3.71	7.41
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.87	Cum	**6914.20**	227282.62	13.56	14.13	28.27
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.54	Cum	**8151.40**	4391.61	0.31	0.21	0.43
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.79	MT	**73574.90**	57890.20			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	135.91	Sqm	**578.60**	78638.77			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.14	Sqm	**680.10**	5533.29			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.12	Cum	**694.61**	83.35			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.12	Cum	**1237.00**	148.44			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.12	Cum	**1377.70**	165.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.12	Cum	**516.50**	61.98			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.86	Sqm	**63.20**	559.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	19.66	Cum	**149.30**	2934.67			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	18.052	Cum	**1075.00**	19405.46			
	Coarse Aggregates (100 Km lead)	36.109	Cum	**1398.00**	50479.77			
	Cement (30 km lead)	16.547	MT	**742.00**	12277.97			
	Boulder (60 Km lead)	0.12	Cum	**1159.00**	139.08			
	Brick (15 km lead)	488.00	No.	**3.18**	1551.84			
	Steel (30 Km lead)	0.79	MT	**742.00**	583.82			
	TOTAL (In Rs.)				**536341.50**			
	TOTAL (In Rs.)				**536341.50**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	18.05	Cum	**584.64**	10553.68	1055.37		
	Coarse Aggregate	36.11	Cum	**944.26**	34095.87	3409.59		
	Boulders	0.12	Cum	**694.61**	83.35	8.34		
	Total					4473.29		
	For 1 nos. fall, Total Seigniorage charges					**4473.29**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.12.800 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	60.767	Cum	**195.20**	11861.77			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.41	Cum	**6381.70**	47311.58	2.40	3.34	6.67
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.99	Cum	**6914.20**	186638.98	11.13	11.61	23.21
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.51	Cum	**8151.40**	4122.98	0.29	0.20	0.40
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.64	MT	**73574.90**	46771.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.43	Sqm	**578.60**	68523.94			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.15	Sqm	**680.10**	4184.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.59	Sqm	**63.20**	542.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.13	Cum	**149.30**	2408.01			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.141	Cum	**1075.00**	16276.18			
	Coarse Aggregates (100 Km lead)	30.286	Cum	**1398.00**	42340.29			
	Cement (30 km lead)	13.837	MT	**742.00**	10266.71			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	369.00	No.	**3.18**	1173.42			
	Steel (30 Km lead)	0.64	MT	**742.00**	471.69			
	TOTAL (In Rs.)				**454632.50**			
	TOTAL (In Rs.)				**454632.50**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.14	Cum	**584.64**	8851.82	885.18		
	Coarse Aggregate	30.29	Cum	**944.26**	28598.17	2859.82		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					3752.81		
	For 1 nos. fall, Total Seigniorage charges					**3752.81**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.13.868 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	35.499	Cum	**195.20**	6929.37			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.46	Cum	**6381.70**	41241.43	2.09	2.91	5.82
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	21.44	Cum	**6914.20**	148225.85	8.84	9.22	18.44
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.47	Cum	**8151.40**	3809.35	0.26	0.18	0.37
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.50	MT	**73574.90**	37145.19			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	101.41	Sqm	**578.60**	58678.66			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.23	Sqm	**680.10**	2875.12			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.08	Cum	**694.61**	52.10			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.08	Cum	**1237.00**	92.78			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.08	Cum	**1377.70**	103.33			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.08	Cum	**516.50**	38.74			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.91	Sqm	**63.20**	499.69	0.012		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.11	Cum	**149.30**	1509.97			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	12.309	Cum	**1075.00**	13231.80			
	Coarse Aggregates (100 Km lead)	24.622	Cum	**1398.00**	34421.53			
	Cement (30 km lead)	11.214	MT	**742.00**	8320.64			
	Boulder (60 Km lead)	0.08	Cum	**1159.00**	86.93			
	Brick (15 km lead)	253.00	No.	**3.18**	804.54			
	Steel (30 Km lead)	0.50	MT	**742.00**	374.61			
	TOTAL (In Rs.)				**369619.01**			
	TOTAL (In Rs.)				**369619.01**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	12.31	Cum	**584.64**	7196.13	719.61		
	Coarse Aggregate	24.62	Cum	**944.26**	23249.55	2324.95		
	Boulders	0.08	Cum	**694.61**	52.10	5.21		
	Total					3049.78		
	For 1 nos. fall, Total Seigniorage charges					**3049.78**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR DEOKULI MINOR							
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 1.200 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	55.632	Cum	**195.20**	10859.33			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.31	Cum	**6381.70**	65778.28	3.34	4.64	9.28
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	57.99	Cum	**6914.20**	400963.15	23.92	24.94	49.87
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	10.43	Cum	**8151.40**	85047.71	5.92	4.07	8.24
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.78	MT	**73574.90**	131288.97			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	199.61	Sqm	**578.60**	115494.18			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.32	Sqm	**680.10**	4296.87			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.36	Cum	**694.61**	250.06			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.36	Cum	**1237.00**	445.32			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.36	Cum	**1377.70**	495.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.36	Cum	**516.50**	185.94			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.99	Sqm	**63.20**	378.71	0.009		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	8.01	Cum	**149.30**	1195.46			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	33.644	Cum	**1075.00**	36166.88			
	Coarse Aggregates (100 Km lead)	67.392	Cum	**1398.00**	94213.39			
	Cement (30 km lead)	33.186	MT	**742.00**	24623.83			
	Steel (30 Km lead)	1.78	MT	**742.00**	1324.04			
	Boulder (60 Km lead)	0.36	Cum	**1159.00**	417.24			
	TOTAL (In Rs.)				**984602.73**			
	TOTAL (In Rs.)				**984602.73**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	33.64	Cum	**584.64**	19669.40	1966.94		
	Coarse Aggregate	67.39	Cum	**944.26**	63635.15	6363.51		
	Total					8330.45		
	For 1 nos. fall, Total Seigniorage charges					**8330.45**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.3.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	61.579	Cum	**195.20**	12020.28			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.72	Cum	**6381.70**	49296.44	2.50	3.48	6.95
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.37	Cum	**6914.20**	223813.30	13.35	13.92	27.84
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.56	Cum	**8151.40**	4591.40	0.32	0.22	0.44
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.76	MT	**73574.90**	56087.30			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	133.05	Sqm	**578.60**	76981.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.07	Sqm	**680.10**	3450.15			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.14	Cum	**694.61**	93.77			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.14	Cum	**1237.00**	167.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.14	Cum	**1377.70**	185.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.14	Cum	**516.50**	69.73			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.38	Sqm	**63.20**	592.52	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	21.49	Cum	**149.30**	3208.84			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.615	Cum	**1075.00**	18936.03			
	Coarse Aggregates (100 Km lead)	35.235	Cum	**1398.00**	49259.16			
	Cement (30 km lead)	16.189	MT	**742.00**	12012.15			
	Steel (30 Km lead)	0.76	MT	**742.00**	565.64			
	Boulder (60 Km lead)	0.14	Cum	**1159.00**	156.47			
	TOTAL (In Rs.)				**522665.06**			
	TOTAL (In Rs.)				**522665.06**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.61	Cum	**584.64**	10298.38	1029.84		
	Coarse Aggregate	35.24	Cum	**944.26**	33271.43	3327.14		
	Boulders	0.14	Cum	**694.61**	93.77	9.38		
	Total					4366.36		
	For 1 nos. fall, Total Seigniorage charges					**4366.36**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.3.600 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	61.579	Cum	**195.20**	12020.28			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.72	Cum	**6381.70**	49296.44	2.50	3.48	6.95
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.37	Cum	**6914.20**	223813.30	13.35	13.92	27.84
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.56	Cum	**8151.40**	4591.40	0.32	0.22	0.44
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.76	MT	**73574.90**	56087.30			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	133.05	Sqm	**578.60**	76981.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.07	Sqm	**680.10**	3450.15			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.14	Cum	**694.61**	93.77			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.14	Cum	**1237.00**	167.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.14	Cum	**1377.70**	185.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.14	Cum	**516.50**	69.73			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.38	Sqm	**63.20**	592.52	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	20.18	Cum	**149.30**	3012.67			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.615	Cum	**1075.00**	18936.03			
	Coarse Aggregates (100 Km lead)	35.235	Cum	**1398.00**	49259.16			
	Cement (30 km lead)	16.189	MT	**742.00**	12012.15			
	Boulder (60 Km lead)	0.14	Cum	**1159.00**	156.47			
	Brick (15 km lead)	304.00	No.	**3.18**	966.72			
	Steel (30 Km lead)	0.76	MT	**742.00**	565.64			
	TOTAL (In Rs.)				**523435.61**			
	TOTAL (In Rs.)				**523435.61**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.61	Cum	**584.64**	10298.38	1029.84		
	Coarse Aggregate	35.24	Cum	**944.26**	33271.43	3327.14		
	Boulders	0.14	Cum	**694.61**	93.77	9.38		
	Total					4366.36		
	For 1 nos. fall, Total Seigniorage charges					**4366.36**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR THAKUR BIGHA MINOR							
	SHARDA TYPE FALL CUM CULVERT OF HEIGHT 0.610 METER AT CH.2.650 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	73.990	Cum	**195.20**	14442.81			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.11	Cum	**6381.70**	64531.54	3.28	4.55	9.10
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.57	Cum	**6914.20**	322025.26	19.21	20.03	40.05
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	10.73	Cum	**8151.40**	87473.49	6.08	4.19	8.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.50	MT	**73574.90**	110726.59			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	187.05	Sqm	**578.60**	108227.95			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	9.29	Sqm	**680.10**	6319.49			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.42	Cum	**694.61**	291.74			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.42	Cum	**1237.00**	519.54			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.42	Cum	**1377.70**	578.63			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.42	Cum	**516.50**	216.93			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.49	Sqm	**63.20**	410.10	0.010		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	19.07	Cum	**149.30**	2847.12			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.763	Cum	**1075.00**	30919.73			
	Coarse Aggregates (100 Km lead)	57.632	Cum	**1398.00**	80570.08			
	Cement (30 km lead)	28.583	MT	**742.00**	21208.23			
	Boulder (60 Km lead)	0.42	Cum	**1159.00**	486.78			
	Brick (15 km lead)	557.00	No.	**3.18**	1771.26			
	Steel (30 Km lead)	1.50	MT	**742.00**	1116.67			
	TOTAL (In Rs.)				**865861.36**			
	TOTAL (In Rs.)				**865861.36**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.76	Cum	**584.64**	16815.73	1681.57		
	Coarse Aggregate	57.63	Cum	**944.26**	54419.96	5442.00		
	Boulders	0.42	Cum	**694.61**	291.74	29.17		
	Total					7152.74		
	For 1 nos. fall, Total Seigniorage charges					**7152.74**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 4.500 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	51.872	Cum	**195.20**	10125.49			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.40	Cum	**6381.70**	47254.20	2.40	3.33	6.66
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.39	Cum	**6914.20**	223951.51	13.36	13.93	27.86
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.53	Cum	**8151.40**	4311.89	0.30	0.21	0.42
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.76	MT	**73574.90**	56121.94			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	129.35	Sqm	**578.60**	74844.54			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.88	Sqm	**680.10**	4001.03			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.00	Cum	**694.61**	0.00			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.00	Cum	**1237.00**	0.00			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.00	Cum	**1377.70**	0.00			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.00	Cum	**516.50**	0.00			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.82	Sqm	**63.20**	557.71	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	17.56	Cum	**149.30**	2620.98			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.466	Cum	**1075.00**	18776.08			
	Coarse Aggregates (100 Km lead)	34.938	Cum	**1398.00**	48842.68			
	Cement (30 km lead)	16.073	MT	**742.00**	11926.30			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	352.00	No.	**3.18**	1119.36			
	Steel (30 Km lead)	0.76	MT	**742.00**	565.99			
	TOTAL (In Rs.)				**516197.08**			
	TOTAL (In Rs.)				**516197.08**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.47	Cum	**584.64**	10211.39	1021.14		
	Coarse Aggregate	34.94	Cum	**944.26**	32990.12	3299.01		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					4320.15		
	For 1 nos. fall, Total Seigniorage charges					**4320.15**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.4.580KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	60.767	Cum	**195.20**	11861.77			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.41	Cum	**6381.70**	47311.58	2.40	3.34	6.67
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.99	Cum	**6914.20**	186638.98	11.13	11.61	23.21
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.51	Cum	**8151.40**	4122.98	0.29	0.20	0.40
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.64	MT	**73574.90**	46771.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.43	Sqm	**578.60**	68523.94			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.15	Sqm	**680.10**	4184.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.59	Sqm	**63.20**	542.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.13	Cum	**149.30**	2408.01			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.141	Cum	**1075.00**	16276.18			
	Coarse Aggregates (100 Km lead)	30.286	Cum	**1398.00**	42340.29			
	Cement (30 km lead)	13.837	MT	**742.00**	10266.71			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	369.00	No.	**3.18**	1173.42			
	Steel (30 Km lead)	0.64	MT	**742.00**	471.69			
	TOTAL (In Rs.)				**454632.50**			
	TOTAL (In Rs.)				**454632.50**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.14	Cum	**584.64**	8851.82	885.18		
	Coarse Aggregate	30.29	Cum	**944.26**	28598.17	2859.82		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					3752.81		
	For 1 nos. fall, Total Seigniorage charges					**3752.81**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.5.830 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	58.385	Cum	**195.20**	11396.74			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.41	Cum	**6381.70**	47311.58	2.40	3.34	6.67
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.99	Cum	**6914.20**	186638.98	11.13	11.61	23.21
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.51	Cum	**8151.40**	4122.98	0.29	0.20	0.40
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.64	MT	**73574.90**	46771.47			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	118.43	Sqm	**578.60**	68523.94			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	6.15	Sqm	**680.10**	4184.66			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.11	Cum	**694.61**	78.14			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.11	Cum	**1237.00**	139.16			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.11	Cum	**1377.70**	154.99			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.11	Cum	**516.50**	58.11			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.59	Sqm	**63.20**	542.64	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.54	Cum	**149.30**	2021.69			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.141	Cum	**1075.00**	16276.18			
	Coarse Aggregates (100 Km lead)	30.286	Cum	**1398.00**	42340.29			
	Cement (30 km lead)	13.837	MT	**742.00**	10266.71			
	Boulder (60 Km lead)	0.11	Cum	**1159.00**	130.39			
	Brick (15 km lead)	369.00	No.	**3.18**	1173.42			
	Steel (30 Km lead)	0.64	MT	**742.00**	471.69			
	TOTAL (In Rs.)				**453781.15**			
	TOTAL (In Rs.)				**453781.15**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.14	Cum	**584.64**	8851.82	885.18		
	Coarse Aggregate	30.29	Cum	**944.26**	28598.17	2859.82		
	Boulders	0.11	Cum	**694.61**	78.14	7.81		
	Total					3752.81		
	For 1 nos. fall, Total Seigniorage charges					**3752.81**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF QUANTITIES OF SHARDA TYPE FALL FOR DADHPA SUB DY.							
	SHARDA TYPE FALL OF HEIGHT 1.928 METER AT CH.0.350 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	150.887	Cum	**195.20**	29453.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.46	Cum	**6381.70**	92285.72	4.69	6.51	13.01
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	96.41	Cum	**6914.20**	666604.27	39.77	41.46	82.91
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.93	Cum	**8151.40**	7604.03	0.53	0.36	0.74
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.27	MT	**73574.90**	167050.10			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	277.24	Sqm	**578.60**	160411.05			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.43	Sqm	**680.10**	5055.86			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	**694.61**	510.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.74	Cum	**1237.00**	909.20			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.74	Cum	**1377.70**	1012.61			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.74	Cum	**516.50**	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.26	Sqm	**63.20**	837.84	0.020		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.62	Cum	**149.30**	6512.43			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	48.328	Cum	**1075.00**	51952.54			
	Coarse Aggregates (100 Km lead)	96.665	Cum	**1398.00**	135137.98			
	Cement (30 km lead)	45.004	MT	**742.00**	33392.72			
	Boulder (60 Km lead)	0.74	Cum	**1159.00**	851.87			
	Brick (15 km lead)	446.00	No.	**3.18**	1418.28			
	Steel (30 Km lead)	2.27	MT	**742.00**	1684.69			
	TOTAL (In Rs.)				**1374241.97**			
	TOTAL (In Rs.)				**1374241.97**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	48.33	Cum	**584.64**	28254.45	2825.45		
	Coarse Aggregate	96.67	Cum	**944.26**	91277.10	9127.71		
	Boulders	0.74	Cum	**694.61**	510.54	51.05		
	Total					12004.21		
	For 1 nos. fall, Total Seigniorage charges					**12004.21**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH.0.580 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	150.887	Cum	**195.20**	29453.19			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.46	Cum	**6381.70**	92285.72	4.69	6.51	13.01
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	96.41	Cum	**6914.20**	666604.27	39.77	41.46	82.91
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.93	Cum	**8151.40**	7604.03	0.53	0.36	0.74
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.27	MT	**73574.90**	167050.10			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	277.24	Sqm	**578.60**	160411.05			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.43	Sqm	**680.10**	5055.86			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	**694.61**	510.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.74	Cum	**1237.00**	909.20			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.74	Cum	**1377.70**	1012.61			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.74	Cum	**516.50**	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	13.26	Sqm	**63.20**	837.84	0.020		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.62	Cum	**149.30**	6512.43			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	48.328	Cum	**1075.00**	51952.54			
	Coarse Aggregates (100 Km lead)	96.665	Cum	**1398.00**	135137.98			
	Cement (30 km lead)	45.004	MT	**742.00**	33392.72			
	Boulder (60 Km lead)	0.74	Cum	**1159.00**	851.87			
	Brick (15 km lead)	446.00	No.	**3.18**	1418.28			
	Steel (30 Km lead)	2.27	MT	**742.00**	1684.69			
	TOTAL (In Rs.)				**1374241.97**			
	TOTAL (In Rs.)				**1374241.97**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	48.33	Cum	**584.64**	28254.45	2825.45		
	Coarse Aggregate	96.67	Cum	**944.26**	91277.10	9127.71		
	Boulders	0.74	Cum	**694.61**	510.54	51.05		
	Total					12004.21		
	For 1 nos. fall, Total Seigniorage charges					**12004.21**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 1.150 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	56.483	Cum	**195.20**	11025.49			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.91	Cum	**6381.70**	69631.95	3.54	4.91	9.82
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.79	Cum	**6914.20**	282031.05	16.83	17.54	35.08
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.63	Cum	**8151.40**	5098.70	0.35	0.24	0.49
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.96	MT	**73574.90**	70676.59			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	123.47	Sqm	**578.60**	71438.26			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.43	Sqm	**680.10**	5055.86			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.74	Cum	**694.61**	510.54			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.74	Cum	**1237.00**	909.20			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.74	Cum	**1377.70**	1012.61			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.74	Cum	**516.50**	379.63			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.91	Sqm	**63.20**	563.11	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	4.00	No.	**5588.70**	22354.80			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.34	Cum	**149.30**	1543.42			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	22.694	Cum	**1075.00**	24395.76			
	Coarse Aggregates (100 Km lead)	45.394	Cum	**1398.00**	63460.42			
	Cement (30 km lead)	20.729	MT	**742.00**	15381.05			
	Boulder (60 Km lead)	0.74	Cum	**1159.00**	851.87			
	Brick (15 km lead)	446.00	No.	**3.18**	1418.28			
	Steel (30 Km lead)	0.96	MT	**742.00**	712.77			
	TOTAL (In Rs.)				**648451.36**			
	TOTAL (In Rs.)				**648451.36**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	22.69	Cum	**584.64**	13267.66	1326.77		
	Coarse Aggregate	45.39	Cum	**944.26**	42863.47	4286.35		
	Boulders	0.74	Cum	**694.61**	510.54	51.05		
	Total					5664.17		
	For 1 nos. fall, Total Seigniorage charges					**5664.17**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.1.465 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	58.357	Cum	**195.20**	11391.26			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.31	Cum	**6381.70**	59409.54	3.02	4.19	8.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.35	Cum	**6914.20**	244390.39	14.58	15.20	30.40
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.58	Cum	**8151.40**	4732.25	0.33	0.23	0.46
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.83	MT	**73574.90**	61243.89			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	137.88	Sqm	**578.60**	79778.46			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.98	Sqm	**63.20**	567.72	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	5.05	Cum	**149.30**	753.80			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	19.614	Cum	**1075.00**	21085.56			
	Coarse Aggregates (100 Km lead)	39.235	Cum	**1398.00**	54850.18			
	Cement (30 km lead)	17.939	MT	**742.00**	13310.86			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.83	MT	**742.00**	617.64			
	TOTAL (In Rs.)				**573342.73**			
	TOTAL (In Rs.)				**573342.73**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	19.61	Cum	**584.64**	11467.40	1146.74		
	Coarse Aggregate	39.23	Cum	**944.26**	37047.80	3704.78		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					4887.36		
	For 1 nos. fall, Total Seigniorage charges					**4887.36**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH.2.225 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	114.589	Cum	**195.20**	22367.76			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.47	Cum	**6381.70**	60432.50	3.07	4.26	8.52
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.42	Cum	**6914.20**	286387.19	17.09	17.81	35.62
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.64	Cum	**8151.40**	5210.21	0.36	0.25	0.50
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.98	MT	**73574.90**	71768.23			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	152.51	Sqm	**578.60**	88243.43			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.89	Sqm	**680.10**	4003.07			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.41	Cum	**694.61**	281.32			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.41	Cum	**1237.00**	500.99			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.41	Cum	**1377.70**	557.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.41	Cum	**516.50**	209.18			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.41	Sqm	**63.20**	594.62	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.95	Cum	**149.30**	4471.53			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	22.321	Cum	**1075.00**	23995.39			
	Coarse Aggregates (100 Km lead)	44.649	Cum	**1398.00**	62419.26			
	Cement (30 km lead)	20.531	MT	**742.00**	15233.64			
	Boulder (60 Km lead)	0.41	Cum	**1159.00**	469.40			
	Brick (15 km lead)	353.00	No.	**3.18**	1122.54			
	Steel (30 Km lead)	0.98	MT	**742.00**	723.78			
	TOTAL (In Rs.)				**660169.41**			
	TOTAL (In Rs.)				**660169.41**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	22.32	Cum	**584.64**	13049.92	1304.99		
	Coarse Aggregate	44.65	Cum	**944.26**	42160.24	4216.02		
	Boulders	0.41	Cum	**694.61**	281.32	28.13		
	Total					5549.15		
	For 1 nos. fall, Total Seigniorage charges					**5549.15**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.3.230 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	77.243	Cum	**195.20**	15077.89			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	13.60	Cum	**6381.70**	86795.51	4.41	6.12	12.24
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	78.07	Cum	**6914.20**	539808.87	32.20	33.57	67.14
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	18.24	Cum	**8151.40**	148711.61	10.34	7.12	14.41
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.36	MT	**73574.90**	173870.46			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	253.71	Sqm	**578.60**	146798.21			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.66	Cum	**694.61**	458.44			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.66	Cum	**1237.00**	816.42			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.66	Cum	**1377.70**	909.28			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.66	Cum	**516.50**	340.89			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.10	Sqm	**63.20**	385.76	0.009		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.96	Cum	**149.30**	1637.06			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	46.807	Cum	**1075.00**	50317.01			
	Coarse Aggregates (100 Km lead)	94.455	Cum	**1398.00**	132048.77			
	Cement (30 km lead)	46.965	MT	**742.00**	34847.92			
	Boulder (60 Km lead)	0.66	Cum	**1159.00**	764.94			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	2.36	MT	**742.00**	1753.48			
	TOTAL (In Rs.)				**1353981.55**			
	TOTAL (In Rs.)				**1353981.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	46.81	Cum	**584.64**	27364.97	2736.50		
	Coarse Aggregate	94.46	Cum	**944.26**	89190.53	8919.05		
	Boulders	0.66	Cum	**694.61**	458.44	45.84		
	Total					11701.39		
	For 1 nos. fall, Total Seigniorage charges					**11701.39**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.3.650 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	38.556	Cum	**195.20**	7526.23			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.92	Cum	**6381.70**	50526.01	2.57	3.56	7.13
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.36	Cum	**6914.20**	182229.11	10.87	11.33	22.67
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.54	Cum	**8151.40**	4409.09	0.31	0.21	0.43
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.62	MT	**73574.90**	45666.36			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	114.51	Sqm	**578.60**	66255.05			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	5.61	Sqm	**680.10**	3817.40			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.36	Cum	**694.61**	250.06			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.36	Cum	**1237.00**	445.32			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.36	Cum	**1377.70**	495.97			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.36	Cum	**516.50**	185.94			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.30	Sqm	**63.20**	524.43	0.012		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	9.57	Cum	**149.30**	1428.24			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.107	Cum	**1075.00**	16239.74			
	Coarse Aggregates (100 Km lead)	30.219	Cum	**1398.00**	42245.98			
	Cement (30 km lead)	13.756	MT	**742.00**	10207.03			
	Boulder (60 Km lead)	0.36	Cum	**1159.00**	417.24			
	Brick (15 km lead)	336.00	No.	**3.18**	1068.48			
	Steel (30 Km lead)	0.62	MT	**742.00**	460.54			
	TOTAL (In Rs.)				**445575.62**			
	TOTAL (In Rs.)				**445575.62**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.11	Cum	**584.64**	8832.00	883.20		
	Coarse Aggregate	30.22	Cum	**944.26**	28534.47	2853.45		
	Boulders	0.36	Cum	**694.61**	250.06	25.01		
	Total					3761.65		
	For 1 nos. fall, Total Seigniorage charges					**3761.65**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.4.200 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	66.086	Cum	**195.20**	12899.95			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.49	Cum	**6381.70**	60575.82	3.08	4.27	8.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.04	Cum	**6914.20**	256081.34	15.28	15.93	31.85
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4966.53	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.87	MT	**73574.90**	64173.63			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	142.19	Sqm	**578.60**	82271.58			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.57	Sqm	**680.10**	5827.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.52	Cum	**694.61**	358.42			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.52	Cum	**1237.00**	638.29			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.52	Cum	**1377.70**	710.89			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.52	Cum	**516.50**	266.51			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.12	Sqm	**63.20**	576.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.44	Cum	**149.30**	1558.98			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.435	Cum	**1075.00**	21967.61			
	Coarse Aggregates (100 Km lead)	40.876	Cum	**1398.00**	57144.75			
	Cement (30 km lead)	18.712	MT	**742.00**	13884.57			
	Boulder (60 Km lead)	0.52	Cum	**1159.00**	598.04			
	Brick (15 km lead)	514.00	No.	**3.18**	1634.52			
	Steel (30 Km lead)	0.87	MT	**742.00**	647.19			
	TOTAL (In Rs.)				**597959.49**			
	TOTAL (In Rs.)				**597959.49**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.43	Cum	**584.64**	11947.11	1194.71		
	Coarse Aggregate	40.88	Cum	**944.26**	38597.64	3859.76		
	Boulders	0.52	Cum	**694.61**	358.42	35.84		
	Total					5090.32		
	For 1 nos. fall, Total Seigniorage charges					**5090.32**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.765 METER AT CH.4.940 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.720	Cum	**195.20**	14585.36			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.90	Cum	**6381.70**	56782.38	2.88	4.00	8.01
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.46	Cum	**6914.20**	279766.43	16.69	17.40	34.80
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.59	Cum	**8151.40**	4821.02	0.34	0.23	0.47
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.95	MT	**73574.90**	70109.08			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	151.50	Sqm	**578.60**	87658.51			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	7.18	Sqm	**680.10**	4882.10			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.21	Cum	**694.61**	145.87			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.21	Cum	**1237.00**	259.77			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.21	Cum	**1377.70**	289.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.21	Cum	**516.50**	108.47			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.58	Sqm	**63.20**	605.37	0.014		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.84	Cum	**149.30**	3410.04			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.634	Cum	**1075.00**	23256.05			
	Coarse Aggregates (100 Km lead)	43.273	Cum	**1398.00**	60495.62			
	Cement (30 km lead)	19.923	MT	**742.00**	14783.15			
	Boulder (60 Km lead)	0.21	Cum	**1159.00**	243.39			
	Brick (15 km lead)	430.00	No.	**3.18**	1367.40			
	Steel (30 Km lead)	0.95	MT	**742.00**	707.05			
	TOTAL (In Rs.)				**635453.77**			
	TOTAL (In Rs.)				**635453.77**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.63	Cum	**584.64**	12647.83	1264.78		
	Coarse Aggregate	43.27	Cum	**944.26**	40860.94	4086.09		
	Boulders	0.21	Cum	**694.61**	145.87	14.59		
	Total					5365.46		
	For 1 nos. fall, Total Seigniorage charges					**5365.46**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH.5.920 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	40.562	Cum	**195.20**	7917.73			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.84	Cum	**6381.70**	50044.36	2.54	3.53	7.06
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.47	Cum	**6914.20**	189961.01	11.33	11.81	23.63
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.52	Cum	**8151.40**	4224.59	0.29	0.20	0.41
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.66	MT	**73574.90**	48501.96			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	120.38	Sqm	**578.60**	69651.64			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	8.14	Sqm	**680.10**	5533.29			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.12	Cum	**694.61**	83.35			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.12	Cum	**1237.00**	148.44			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.12	Cum	**1377.70**	165.32			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.12	Cum	**516.50**	61.98			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.93	Sqm	**63.20**	564.08	0.013		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	10.28	Cum	**149.30**	1534.80			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.545	Cum	**1075.00**	16710.65			
	Coarse Aggregates (100 Km lead)	31.095	Cum	**1398.00**	43470.49			
	Cement (30 km lead)	14.181	MT	**742.00**	10522.34			
	Boulder (60 Km lead)	0.12	Cum	**1159.00**	139.08			
	Brick (15 km lead)	488.00	No.	**3.18**	1551.84			
	Steel (30 Km lead)	0.66	MT	**742.00**	489.14			
	TOTAL (In Rs.)				**462453.48**			
	TOTAL (In Rs.)				**462453.48**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.54	Cum	**584.64**	9088.11	908.81		
	Coarse Aggregate	31.09	Cum	**944.26**	29361.55	2936.15		
	Boulders	0.12	Cum	**694.61**	83.35	8.34		
	Total					3853.30		
	For 1 nos. fall, Total Seigniorage charges					**3853.30**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST OF IGUNI MINOR							
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH.1.350 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	79.646	Cum	**195.20**	15546.90			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.38	Cum	**6381.70**	53484.43	2.72	3.77	7.54
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	49.68	Cum	**6914.20**	343526.60	20.49	21.36	42.73
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.61	Cum	**8151.40**	4980.10	0.35	0.24	0.48
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.17	MT	**73574.90**	86087.29			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	190.74	Sqm	**578.60**	110360.98			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.32	Sqm	**680.10**	2936.33			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.04	Cum	**694.61**	26.05			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.04	Cum	**1237.00**	46.39			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.04	Cum	**1377.70**	51.66			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.04	Cum	**516.50**	19.37			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.54	Sqm	**63.20**	666.06	0.016		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	24.29	Cum	**149.30**	3625.83			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.374	Cum	**1075.00**	27276.93			
	Coarse Aggregates (100 Km lead)	50.754	Cum	**1398.00**	70953.94			
	Cement (30 km lead)	23.572	MT	**742.00**	17490.70			
	Boulder (60 Km lead)	0.04	Cum	**1159.00**	43.46			
	Brick (15 km lead)	259.00	No.	**3.18**	823.62			
	Steel (30 Km lead)	1.17	MT	**742.00**	868.19			
	TOTAL (In Rs.)				**749992.23**			
	TOTAL (In Rs.)				**749992.23**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.37	Cum	**584.64**	14834.59	1483.46		
	Coarse Aggregate	50.75	Cum	**944.26**	47924.87	4792.49		
	Boulders	0.04	Cum	**694.61**	26.05	2.60		
	Total					6278.55		
	For 1 nos. fall, Total Seigniorage charges					**6278.55**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	ABSTRACT OF COST OF GURARU SUB DY							
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.0.180 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	168.694	Cum	**195.20**	32929.13			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.87	Cum	**6381.70**	94906.48	4.82	6.69	13.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	89.76	Cum	**6914.20**	620626.64	37.03	38.60	77.19
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.88	Cum	**8151.40**	7134.15	0.50	0.34	0.69
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.11	MT	**73574.90**	155528.17			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	261.31	Sqm	**578.60**	151191.10			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.60	Sqm	**680.10**	8569.26			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.93	Cum	**694.61**	645.99			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.93	Cum	**1237.00**	1150.41			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.93	Cum	**1377.70**	1281.26			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.93	Cum	**516.50**	480.35			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.54	Sqm	**63.20**	792.28	0.019		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	55.87	Cum	**149.30**	8341.09			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	45.631	Cum	**1075.00**	49053.19			
	Coarse Aggregates (100 Km lead)	91.271	Cum	**1398.00**	127596.17			
	Cement (30 km lead)	42.360	MT	**742.00**	31431.08			
	Boulder (60 Km lead)	0.93	Cum	**1159.00**	1077.87			
	Brick (15 km lead)	756.00	No.	**3.18**	2404.08			
	Steel (30 Km lead)	2.11	MT	**742.00**	1568.50			
	TOTAL (In Rs.)				**1307884.60**			
	TOTAL (In Rs.)				**1307884.60**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	45.63	Cum	**584.64**	26677.64	2667.76		
	Coarse Aggregate	91.27	Cum	**944.26**	86183.09	8618.31		
	Boulders	0.93	Cum	**694.61**	645.99	64.60		
	Total					11350.67		
	For 1 nos. fall, Total Seigniorage charges					**11350.67**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.1.000 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	168.694	Cum	**195.20**	32929.13			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	14.87	Cum	**6381.70**	94906.48	4.82	6.69	13.38
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	89.76	Cum	**6914.20**	620626.64	37.03	38.60	77.19
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.88	Cum	**8151.40**	7134.15	0.50	0.34	0.69
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	2.11	MT	**73574.90**	155528.17			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	261.31	Sqm	**578.60**	151191.10			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.60	Sqm	**680.10**	8569.26			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.93	Cum	**694.61**	645.99			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.93	Cum	**1237.00**	1150.41			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.93	Cum	**1377.70**	1281.26			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.93	Cum	**516.50**	480.35			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.54	Sqm	**63.20**	792.28	0.019		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	49.43	Cum	**149.30**	7380.61			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	45.631	Cum	**1075.00**	49053.19			
	Coarse Aggregates (100 Km lead)	91.271	Cum	**1398.00**	127596.17			
	Cement (30 km lead)	42.360	MT	**742.00**	31431.08			
	Boulder (60 Km lead)	0.93	Cum	**1159.00**	1077.87			
	Brick (15 km lead)	756.00	No.	**3.18**	2404.08			
	Steel (30 Km lead)	2.11	MT	**742.00**	1568.50			
TOTAL (In Rs.)					**1306924.12**			
TOTAL (In Rs.)					**1306924.12**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	45.63	Cum	**584.64**	26677.64	2667.76		
	Coarse Aggregate	91.27	Cum	**944.26**	86183.09	8618.31		
	Boulders	0.93	Cum	**694.61**	645.99	64.60		
	Total					11350.67		
	For 1 nos. fall, Total Seigniorage charges					**11350.67**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 1.550 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	96.004	Cum	**195.20**	18739.97			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	13.16	Cum	**6381.70**	83976.22	4.26	5.92	11.84
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	73.44	Cum	**6914.20**	507788.47	30.29	31.58	63.16
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.80	Cum	**8151.40**	6522.30	0.45	0.31	0.63
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.73	MT	**73574.90**	127251.08			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	223.30	Sqm	**578.60**	129200.18			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	12.79	Sqm	**680.10**	8695.08			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.79	Cum	**694.61**	547.01			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.79	Cum	**1237.00**	974.14			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.79	Cum	**1377.70**	1084.94			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.79	Cum	**516.50**	406.74			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	12.04	Sqm	**63.20**	761.11	0.018		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	23.08	Cum	**149.30**	3446.35			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	37.813	Cum	**1075.00**	40649.37			
	Coarse Aggregates (100 Km lead)	75.635	Cum	**1398.00**	105737.35			
	Cement (30 km lead)	35.030	MT	**742.00**	25992.12			
	Boulder (60 Km lead)	0.79	Cum	**1159.00**	912.71			
	Brick (15 km lead)	767.00	No.	**3.18**	2439.06			
	Steel (30 Km lead)	1.73	MT	**742.00**	1283.32			
TOTAL (In Rs.)					**1077584.94**			
TOTAL (In Rs.)					**1077584.94**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	37.81	Cum	**584.64**	22107.21	2210.72		
	Coarse Aggregate	75.63	Cum	**944.26**	71418.85	7141.89		
	Boulders	0.79	Cum	**694.61**	547.01	54.70		
	Total					9407.31		
	For 1 nos. fall, Total Seigniorage charges					**9407.31**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.2.500 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	95.998	Cum	**195.20**	18738.90			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.21	Cum	**6381.70**	65155.03	3.31	4.59	9.19
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	44.58	Cum	**6914.20**	308225.48	18.39	19.17	38.34
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.48	Cum	**8151.40**	3886.26	0.27	0.19	0.38
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.05	MT	**73574.90**	77240.88			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	162.53	Sqm	**578.60**	94041.71			
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	0.48	Cum	**694.61**	333.41			
9	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	0.48	Cum	**1237.00**	593.76			
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	0.48	Cum	**1377.70**	661.30			
11	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	0.48	Cum	**516.50**	247.92			
12	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	5.97	Sqm	**63.20**	377.00	0.009		
13	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
14	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.48	Cum	**149.30**	4550.87			
15	**Carriage of materials**							
	Coarse Sand (60 Km lead)	23.949	Cum	**1075.00**	25745.27			
	Coarse Aggregates (100 Km lead)	47.903	Cum	**1398.00**	66968.33			
	Cement (30 km lead)	21.976	MT	**742.00**	16306.10			
	Boulder (60 Km lead)	0.48	Cum	**1159.00**	556.32			
	Brick (15 km lead)	0.00	No.	**3.18**	0.00			
	Steel (30 Km lead)	1.05	MT	**742.00**	778.97			
TOTAL (In Rs.)					**695584.90**			
TOTAL (In Rs.)					**695584.90**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	23.95	Cum	**584.64**	14001.60	1400.16		
	Coarse Aggregate	47.90	Cum	**944.26**	45232.84	4523.28		
	Boulders	0.48	Cum	**694.61**	333.41	33.34		
	Total					5956.79		
	For 1 nos. fall, Total Seigniorage charges					**5956.79**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST OF KONCHI MINOR								
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.325 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	52.838	Cum	**195.20**	10313.93			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.20	Cum	**6381.70**	39543.00	2.01	2.79	5.58
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.65	Cum	**6914.20**	225762.06	13.47	14.04	28.08
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.54	Cum	**8151.40**	4429.88	0.31	0.21	0.43
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.77	MT	**73574.90**	56575.66			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	132.85	Sqm	**578.60**	76869.87			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.32	Sqm	**680.10**	2936.33			
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	9.19	Sqm	**63.20**	580.74	0.014		
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	16.49	Cum	**149.30**	2462.21			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	17.041	Cum	**1075.00**	18318.67			
	Coarse Aggregates (100 Km lead)	34.087	Cum	**1398.00**	47653.17			
	Cement (30 km lead)	15.798	MT	**742.00**	11722.45			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	0.00	No.	**3.18**	0.00			
	Steel (30 Km lead)	0.77	MT	**742.00**	570.56			
TOTAL (In Rs.)					**508915.93**			
TOTAL (In Rs.)					**508915.93**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	17.04	Cum	**584.64**	9962.63	996.26		
	Coarse Aggregate	34.09	Cum	**944.26**	32186.68	3218.67		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					4214.93		
	For 1 nos. fall, Total Seigniorage charges					**4214.93**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.875 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	69.376	Cum	**195.20**	13542.12			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.34	Cum	**6381.70**	53253.98	2.70	3.76	7.51
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	55.95	Cum	**6914.20**	386866.82	23.08	24.06	48.12
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	8.83	Cum	**8151.40**	71990.80	5.01	3.44	6.98
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.59	MT	**73574.90**	117107.04			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	197.35	Sqm	**578.60**	114183.91			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.32	Sqm	**680.10**	2936.33			
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	7.55	Sqm	**63.20**	477.11	0.011		
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.40	Cum	**149.30**	2000.76			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.259	Cum	**1075.00**	33603.54			
	Coarse Aggregates (100 Km lead)	62.607	Cum	**1398.00**	87523.92			
	Cement (30 km lead)	30.803	MT	**742.00**	22855.85			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	259.00	No.	**3.18**	823.62			
	Steel (30 Km lead)	1.59	MT	**742.00**	1181.02			
	TOTAL (In Rs.)				**919524.21**			
	TOTAL (In Rs.)				**919524.21**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.26	Cum	**584.64**	18275.32	1827.53		
	Coarse Aggregate	62.61	Cum	**944.26**	59116.83	5911.68		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					7739.22		
	For 1 nos. fall, Total Seigniorage charges					**7739.22**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.1.225 KM							
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	69.324	Cum	**195.20**	13532.04			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.10	Cum	**6381.70**	51694.32	2.62	3.65	7.29
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	43.23	Cum	**6914.20**	298896.31	17.83	18.59	37.18
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.62	Cum	**8151.40**	5084.03	0.35	0.24	0.49
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.02	MT	**73574.90**	74903.00			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	173.43	Sqm	**578.60**	100343.96			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.32	Sqm	**680.10**	2936.33			
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	10.67	Sqm	**63.20**	674.60	0.016		
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.75	Cum	**149.30**	3396.09			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	22.477	Cum	**1075.00**	24162.82			
	Coarse Aggregates (100 Km lead)	44.960	Cum	**1398.00**	62854.52			
	Cement (30 km lead)	20.826	MT	**742.00**	15453.10			
	Steel (30 Km lead)	1.02	MT	**742.00**	755.39			
	Hume Pipe (30 km Lead)	0.00	RM	**919.00**	0.00			
	TOTAL (In Rs.)				**665863.90**			
	TOTAL (In Rs.)				**665863.90**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	22.48	Cum	**584.64**	13140.98	1314.10		
	Coarse Aggregate	44.96	Cum	**944.26**	42454.23	4245.42		
	Total					5559.52		
	Total Seigniorage charges					**5559.52**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH.1.450 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	45.005	Cum	**195.20**	8785.02			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	6.84	Cum	**6381.70**	43644.70	2.22	3.08	6.16
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.04	Cum	**6914.20**	200789.28	11.98	12.49	24.97
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	0.51	Cum	**8151.40**	4137.16	0.29	0.20	0.40
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	0.68	MT	**73574.90**	50317.51			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	125.87	Sqm	**578.60**	72827.47			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.32	Sqm	**680.10**	2936.33			
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	8.47	Sqm	**63.20**	535.35	0.013		
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	13.72	Cum	**149.30**	2048.55			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	15.763	Cum	**1075.00**	16944.97			
	Coarse Aggregates (100 Km lead)	31.531	Cum	**1398.00**	44079.79			
	Cement (30 km lead)	14.495	MT	**742.00**	10755.58			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	259.00	No.	**3.18**	823.62			
	Steel (30 Km lead)	0.68	MT	**742.00**	507.45			
	TOTAL (In Rs.)				**470310.19**			
	TOTAL (In Rs.)				**470310.19**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	15.76	Cum	**584.64**	9215.54	921.55		
	Coarse Aggregate	31.53	Cum	**944.26**	29773.09	2977.31		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					3898.86		
	For 1 nos. fall, Total Seigniorage charges					**3898.86**		

S. No.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.1.725 KM								
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	79.579	Cum	**195.20**	15533.77			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.92	Cum	**6381.70**	63281.37	3.21	4.46	8.92
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	70.91	Cum	**6914.20**	490285.76	29.25	30.49	60.98
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	14.30	Cum	**8151.40**	116573.09	8.11	5.58	11.30
5	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.	1.97	MT	**73574.90**	145142.18			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	239.19	Sqm	**578.60**	138396.55			
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	4.32	Sqm	**680.10**	2936.33			
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	6.14	Sqm	**63.20**	388.04			
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2.00	No.	**5588.70**	11177.40			
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	27.38	Cum	**149.30**	4088.18			
11	**Carriage of materials**							
	Coarse Sand (60 Km lead)	40.531	Cum	**1075.00**	43570.72			
	Coarse Aggregates (100 Km lead)	81.205	Cum	**1398.00**	113524.34			
	Cement (30 km lead)	40.572	MT	**742.00**	30104.30			
	Boulder (60 Km lead)	0.00	Cum	**1159.00**	0.00			
	Brick (15 km lead)	259.00	No.	**3.18**	823.62			
	Steel (30 Km lead)	1.97	MT	**742.00**	1463.75			
TOTAL (In Rs.)					**1177289.41**			
TOTAL (In Rs.)					**1177289.41**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	40.53	Cum	**584.64**	23695.99	2369.60		
	Coarse Aggregate	81.20	Cum	**944.26**	76678.47	7667.85		
	Boulders	0.00	Cum	**694.61**	0.00	0.00		
	Total					10037.45		
	For 1 nos. fall, Total Seigniorage charges					**10037.45**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES OF FALLS FOR MAHIMAPUR SUB DY.							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
	1.220 METER AT CH. 1.689 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.33*	*2.082*	*1.545*	*8.553*	*Cum*
	Section 2-2	*2*	*4.00*	*1.350*	*1.545*	*16.686*	*Cum*
	Section 3-3	*2*	*3.20*	*1.230*	*1.345*	*10.588*	*Cum*
	Section 5-5	*2*	*2.97*	*2.232*	*1.545*	*20.463*	*Cum*
	Section 6-6	*2*	*1.27*	*1.230*	*1.345*	*4.202*	*Cum*
	U/S Key Floor	*1*	*0.66*	*3.300*	*1.000*	*2.186*	*Cum*
	U/S Floor	*1*	*3.50*	*3.300*	*2.320*	*26.796*	*Cum*
	D/S Floor	*1*	*4.00*	*3.300*	*0.900*	*11.880*	*Cum*
		1	*3.50*	*3.300*	*0.700*	*8.085*	*Cum*
	D/S Key Floor	*1*	*0.75*	*3.300*	*1.350*	*3.341*	*Cum*
	Toe Wall D/S Portion	*1*	*8.30*	*0.750*	*0.900*	*5.603*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						120.63	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.300*	*0.150*	*0.27*	*Cum*
		1	*0.95*	*3.300*	*0.150*	*0.47*	*Cum*
		1	*0.92*	*3.300*	*0.150*	*0.45*	*Cum*
		1	*0.28*	*3.300*	*0.150*	*0.14*	*Cum*
		1	*5.56*	*3.300*	*0.150*	*2.75*	*Cum*
		1	*0.57*	*3.300*	*0.150*	*0.28*	*Cum*
		1	*1.82*	*3.300*	*0.150*	*0.90*	*Cum*
		1	*1.34*	*3.300*	*0.150*	*0.66*	*Cum*
		1	*0.54*	*3.300*	*0.150*	*0.27*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.33*	*2.082*	*0.150*	*0.83*	*Cum*
	Section 2-2	*2*	*4.00*	*1.350*	*0.150*	*1.62*	*Cum*
	Section 3-3	*2*	*3.20*	*1.230*	*0.150*	*1.18*	*Cum*
	Section 5-5	*2*	*2.97*	*2.232*	*0.150*	*1.99*	*Cum*
	Section 6-6	*2*	*1.27*	*1.230*	*0.150*	*0.47*	*Cum*
	Toe Wall D/S Portion	*1*	*8.30*	*0.750*	*0.300*	*1.87*	*Cum*
	Toe Wall D/S Portion	*1*	*8.00*	*0.450*	*0.600*	*2.16*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**17.66**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.18*	*0.450*	*0.450*	*0.48*	*Cum*
		2	*1.18*	*1.116*	*2.220*	*5.84*	*Cum*
		2	*1.18*	*1.932*	*0.750*	*3.42*	*Cum*
	Section 2-2	*2*	*4.00*	*0.450*	*0.450*	*1.62*	*Cum*
		2	*4.00*	*0.750*	*1.000*	*6.00*	*Cum*
		2	*4.00*	*1.200*	*0.750*	*7.20*	*Cum*
	Section 3-3	*2*	*2.59*	*0.450*	*0.450*	*1.05*	*Cum*
		2	*2.59*	*0.690*	*0.800*	*2.85*	*Cum*
		2	*2.59*	*1.080*	*0.550*	*3.07*	*Cum*
	Section 5-5	*2*	*2.92*	*0.450*	*0.450*	*1.18*	*Cum*
		2	*2.92*	*1.116*	*2.220*	*14.48*	*Cum*
		2	*2.92*	*1.932*	*0.550*	*6.21*	*Cum*
	Section 6-6	*2*	*1.81*	*0.450*	*0.450*	*0.73*	*Cum*
		2	*1.81*	*0.690*	*0.800*	*2.00*	*Cum*
		2	*1.81*	*1.080*	*0.550*	*2.15*	*Cum*
	Floor	*1*	*0.66*	*3.300*	*0.850*	*1.86*	*Cum*
		1	*7.50*	*3.300*	*0.550*	*13.61*	*Cum*
		1	*5.46*	*3.300*	*0.200*	*3.60*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*3.300*	*0.650*	*0.43*	*Cum*
		1	*0.44*	*3.300*	*0.400*	*0.58*	*Cum*
		1	*3.30*	*3.300*	*0.550*	*5.99*	*Cum*
		1	*0.75*	*3.300*	*1.200*	*2.97*	*Cum*
	Crest	*1*	*1.08*	*3.300*	*1.715*	*6.10*	*Cum*
	TOTAL					**93.43**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*3.300*	*0.150*	*0.40*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.89*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.89*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**1.02**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**93.43**	**0.00**	**0.280**	**7850.0**	**2200.38**	**Kg**
	Total Weight in Metric Tonne					**2.20**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.18*		*0.450*	*2.12*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.18*		*2.220*	*10.47*	*Sqm*
		4		*1.116*	*2.220*	*9.91*	*Sqm*
		4	*1.18*		*0.750*	*3.54*	*Sqm*
		4		*1.932*	*0.750*	*5.80*	*Sqm*
	Section 2-2	*4*	*4.00*		*0.450*	*7.20*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.00*		*1.000*	*16.00*	*Sqm*
		4		*0.750*	*1.000*	*3.00*	*Sqm*
		4	*4.00*		*0.750*	*12.00*	*Sqm*
		4		*1.200*	*0.750*	*3.60*	*Sqm*
	Section 3-3	*4*	*2.59*		*0.450*	*4.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.59*		*0.800*	*8.27*	*Sqm*
		4		*0.690*	*0.800*	*2.21*	*Sqm*
		4	*2.59*		*0.550*	*5.69*	*Sqm*
		4		*1.080*	*0.550*	*2.38*	*Sqm*
	Section 5-5	*4*	*2.92*		*0.450*	*5.26*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.92*		*2.220*	*25.96*	*Sqm*
		4		*1.116*	*2.220*	*9.91*	*Sqm*
		4	*2.92*		*0.550*	*6.43*	*Sqm*
		4		*1.932*	*0.550*	*4.25*	*Sqm*
	Section 6-6	*4*	*1.81*		*0.450*	*3.26*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.81*		*0.800*	*5.79*	*Sqm*
		4		*0.690*	*0.800*	*2.21*	*Sqm*
		4	*1.81*		*0.550*	*3.98*	*Sqm*
		4		*1.080*	*0.550*	*2.38*	*Sqm*
	Floor	*2*	*0.66*		*0.850*	*1.13*	*Sqm*
		2		*3.300*	*0.850*	*5.61*	*Sqm*
		2	*7.50*		*0.550*	*8.25*	*Sqm*
		2		*3.300*	*0.550*	*3.63*	*Sqm*
		2	*5.46*		*0.200*	*2.18*	*Sqm*
		2		*3.300*	*0.200*	*1.32*	*Sqm*
		2	*0.20*		*0.650*	*0.26*	*Sqm*
		2		*3.300*	*0.650*	*4.29*	*Sqm*
		2	*0.44*		*0.400*	*0.35*	*Sqm*
		2		*3.300*	*0.400*	*2.64*	*Sqm*
		2	*3.30*		*0.550*	*3.63*	*Sqm*
		2		*3.300*	*0.550*	*3.63*	*Sqm*
		2	*0.75*		*1.200*	*1.80*	*Sqm*
		2		*3.300*	*1.200*	*7.92*	*Sqm*
	Crest	*2*	*1.08*		*1.715*	*3.70*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*3.300*	*1.715*	*11.32*	*Sqm*
	Toe Wall D/S Portion	*2*	*8.30*		*0.300*	*4.98*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*8.00*		*0.600*	*9.60*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**256.12**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.592*		*12.96*	*Sqm*
	TOTAL					**12.96**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*2.700*	*0.300*	**2.03**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*2.700*	*0.150*	**2.03**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.89*	*0.450*		*6.25*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.89*	*0.450*		*6.25*	*Sqm*
	TOTAL					**12.50**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		17.558		17.56	Cum
	Abutment						
	Section 1-1	2	*1.33*	*3.070*		*8.163*	*Cum*
	Section 2-2	2	*4.00*	*1.162*		*9.296*	*Cum*
	Section 3-3	2	*3.20*	*0.905*		*5.792*	*Cum*
	Section 5-5	2	*2.97*	*3.043*		*18.057*	*Cum*
	Section 6-6	2	*1.27*	*0.905*		*2.299*	*Cum*
	Toe wall	2	*8.30*	*0.150*	*0.600*	*2.490*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**64.10**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 2.216 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.43*	*2.240*	*2.339*	*15.021*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*2.339*	*26.363*	*Cum*
	Section 3-3	*2*	*2.95*	*1.146*	*2.139*	*14.463*	*Cum*
	Section 5-5	*2*	*2.85*	*2.390*	*2.339*	*31.842*	*Cum*
	Section 6-6	*2*	*1.23*	*1.146*	*2.139*	*6.030*	*Cum*
	U/S Key Floor	*1*	*0.74*	*3.000*	*1.300*	*2.876*	*Cum*
	U/S Floor	*1*	*2.01*	*3.000*	*2.724*	*16.385*	*Cum*
	D/S Floor	*1*	*5.65*	*3.000*	*1.000*	*16.935*	*Cum*
		1	*0.73*	*3.000*	*0.250*	*0.544*	*Cum*
		1	*0.85*	*3.000*	*0.550*	*1.399*	*Cum*
		1	*1.35*	*3.000*	*0.775*	*3.139*	*Cum*
	D/S Key Floor	*1*	*1.70*	*3.000*	*1.000*	*5.100*	*Cum*
	Toe Wall D/S Portion	*1*	*7.88*	*0.750*	*0.900*	*5.319*	*Cum*
	Boulder Pitching toe (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						147.67	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
		1	*1.29*	*3.000*	*0.150*	*0.58*	*Cum*
		1	*0.57*	*3.000*	*0.150*	*0.26*	*Cum*
		1	*0.35*	*3.000*	*0.150*	*0.16*	*Cum*
		1	*6.27*	*3.000*	*0.150*	*2.82*	*Cum*
		1	*0.57*	*3.000*	*0.150*	*0.25*	*Cum*
		1	*0.70*	*3.000*	*0.150*	*0.32*	*Cum*
		1	*0.07*	*3.000*	*1.150*	*0.24*	*Cum*
		1	*0.27*	*3.000*	*2.150*	*1.74*	*Cum*
		1	*1.84*	*3.000*	*0.150*	*0.83*	*Cum*
		1	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.43*	*2.240*	*0.150*	*0.96*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*0.150*	*1.69*	*Cum*
	Section 3-3	*2*	*2.95*	*1.146*	*0.150*	*1.01*	*Cum*
	Section 5-5	*2*	*2.85*	*2.390*	*0.150*	*2.04*	*Cum*
	Section 6-6	*2*	*1.23*	*1.146*	*0.150*	*0.42*	*Cum*
	Toe Wall D/S Portion	*1*	*7.88*	*0.750*	*0.300*	*1.77*	*Cum*
	Toe Wall D/S Portion	*1*	*7.58*	*0.450*	*0.600*	*2.05*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**18.99**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.29*	*0.450*	*0.450*	*0.52*	*Cum*
		2	*1.29*	*1.195*	*2.484*	*7.64*	*Cum*
		2	*1.29*	*2.090*	*0.850*	*4.57*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.738*	*0.960*	*6.02*	*Cum*
		2	*4.25*	*1.176*	*0.850*	*8.50*	*Cum*
	Section 3-3	*2*	*2.57*	*0.450*	*0.450*	*1.04*	*Cum*
		2	*2.57*	*0.648*	*0.660*	*2.20*	*Cum*
		2	*2.57*	*0.996*	*0.650*	*3.33*	*Cum*
	Section 5-5	*2*	*2.80*	*0.450*	*0.450*	*1.14*	*Cum*
		2	*2.80*	*1.195*	*2.484*	*16.65*	*Cum*
		2	*2.80*	*2.090*	*0.600*	*7.03*	*Cum*
	Section 6-6	*2*	*1.76*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.76*	*0.648*	*0.660*	*1.51*	*Cum*
		2	*1.76*	*0.996*	*0.600*	*2.10*	*Cum*
	Floor	*1*	*0.738*	*3.000*	*1.150*	*2.54*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*1.76*	*3.000*	*0.600*	*3.16*	*Cum*
		1	*0.73*	*3.000*	*0.250*	*0.54*	*Cum*
		1	*5.48*	*3.000*	*0.850*	*13.96*	*Cum*
		1	*0.20*	*3.000*	*0.550*	*0.33*	*Cum*
		1	*0.65*	*3.000*	*0.400*	*0.78*	*Cum*
		1	*1.30*	*3.000*	*0.650*	*2.54*	*Cum*
		1	*0.05*	*3.000*	*0.625*	*0.09*	*Cum*
		1	*1.70*	*3.000*	*0.600*	*3.06*	*Cum*
		1	*0.86*	*3.000*	*1.650*	*4.23*	
	Crest	*1*	*1.17*	*3.000*	*1.984*	*6.98*	*Cum*
	TOTAL					**102.90**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*3.000*	*0.150*	*0.38*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.89*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.89*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**1.01**	**Cum**
		0.00					
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.25% of M-20	**102.90**	**0.002**	**0.206**	**7850.0**	**1615.58**	**Kg**
	Total Weight in Metric Tonne					**1.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.29*		*0.450*	*2.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.29*		*2.484*	*12.79*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*1.29*		*0.850*	*4.38*	*Sqm*
		4		*2.090*	*0.850*	*7.11*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.960*	*16.32*	*Sqm*
		4		*0.738*	*0.960*	*2.83*	*Sqm*
		4	*4.25*		*0.850*	*14.45*	*Sqm*
		4		*1.176*	*0.850*	*4.00*	*Sqm*
	Section 3-3	*4*	*2.57*		*0.450*	*4.63*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.57*		*0.660*	*6.79*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*2.57*		*0.650*	*6.69*	*Sqm*
		4		*0.996*	*0.650*	*2.59*	*Sqm*
	Section 5-5	*4*	*2.80*		*0.450*	*5.05*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.80*		*2.484*	*27.87*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*2.80*		*0.600*	*6.73*	*Sqm*
		4		*2.090*	*0.600*	*5.02*	*Sqm*
	Section 6-6	*4*	*1.76*		*0.450*	*3.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.76*		*0.660*	*4.65*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*1.76*		*0.600*	*4.22*	*Sqm*
		4		*0.996*	*0.600*	*2.39*	*Sqm*
	Floor	*2*	*0.74*		*1.150*	*1.70*	*Sqm*
		2		*3.000*	*1.150*	*6.90*	*Sqm*
		2	*1.76*		*0.600*	*2.11*	*Sqm*
		2		*3.000*	*0.600*	*3.60*	*Sqm*
		2	*5.48*		*0.850*	*9.31*	*Sqm*
		2		*3.000*	*0.850*	*5.10*	*Sqm*
		2	*0.20*		*0.550*	*0.22*	*Sqm*
		2		*3.000*	*0.550*	*3.30*	*Sqm*
		2	*0.65*		*0.400*	*0.52*	*Sqm*
		2		*3.000*	*0.400*	*2.40*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.300*		*0.650*	*1.69*	*Sqm*
		2		*3.000*	*0.650*	*3.90*	*Sqm*
		2	*0.050*		*0.625*	*0.06*	*Sqm*
		2		*3.000*	*0.625*	*3.75*	*Sqm*
		2	*1.70*		*0.600*	*2.04*	*Sqm*
		2		*3.000*	*0.600*	*3.60*	*Sqm*
		2	*0.855*		*1.65*	*2.82*	*Sqm*
		2		*3.000*	*1.650*	*9.90*	*Sqm*
	Crest	*2*	*1.17*		*1.984*	*4.65*	*Sqm*
		2		*3.000*	*1.984*	*11.90*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.88*		*0.300*	*4.73*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.58*		*0.600*	*9.10*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**285.71**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.520*		*12.60*	*Sqm*
	TOTAL					**12.60**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*2.400*	*0.300*	**1.80**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*2.400*	*0.150*	**1.80**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.89*	*0.450*		*6.25*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.89*	*0.450*		*6.25*	*Sqm*
	TOTAL					**12.50**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		18.869		18.87	**Cum**
	Abutment						
	Section 1-1	2	*1.43*	*0.882*		*2.529*	*Cum*
	Section 2-2	2	*4.25*	*0.900*		*7.650*	*Cum*
	Section 3-3	2	*2.95*	*0.804*		*4.744*	*Cum*
	Section 5-5	2	*2.85*	*0.903*		*5.141*	*Cum*
	Section 6-6	2	*1.23*	*0.804*		*1.978*	*Cum*
	D/S protection	2					
	Toe wall	2	*7.88*	*0.150*	*0.600*	*2.364*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**43.72**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH. 4.968						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.43*	*2.240*	*2.311*	*14.841*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*2.311*	*26.047*	*Cum*
	Section 3-3	*2*	*2.95*	*1.146*	*2.111*	*14.273*	*Cum*
	Section 5-5	*2*	*2.85*	*2.390*	*2.311*	*31.461*	*Cum*
	Section 6-6	*2*	*1.23*	*1.146*	*2.111*	*5.951*	*Cum*
	U/S Key Floor	*1*	*0.74*	*3.000*	*1.300*	*2.876*	*Cum*
	U/S Floor	*1*	*2.01*	*3.000*	*2.724*	*16.385*	*Cum*
	D/S Floor	*1*	*5.65*	*3.000*	*1.000*	*16.935*	*Cum*
		1	*0.73*	*3.000*	*0.250*	*0.544*	*Cum*
		1	*0.85*	*3.000*	*0.550*	*1.399*	*Cum*
		1	*1.35*	*3.000*	*0.775*	*3.139*	*Cum*
	D/S Key Floor	*1*	*1.70*	*3.000*	*1.000*	*5.100*	*Cum*
	Toe Wall D/S Portion	*1*	*7.88*	*0.750*	*0.900*	*5.319*	*Cum*
	Boulder Pitching toe (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						146.52	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
		1	*1.29*	*3.000*	*0.150*	*0.58*	*Cum*
		1	*0.57*	*3.000*	*0.150*	*0.26*	*Cum*
		1	*0.35*	*3.000*	*0.150*	*0.16*	*Cum*
		1	*6.27*	*3.000*	*0.150*	*2.82*	*Cum*
		1	*0.57*	*3.000*	*0.150*	*0.25*	*Cum*
		1	*0.70*	*3.000*	*0.150*	*0.32*	*Cum*
		1	*0.07*	*3.000*	*1.150*	*0.24*	*Cum*
		1	*0.27*	*3.000*	*2.150*	*1.74*	*Cum*
		1	*1.84*	*3.000*	*0.150*	*0.83*	*Cum*
		1	*0.54*	*3.000*	*0.150*	*0.24*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.43*	*2.240*	*0.150*	*0.96*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*0.150*	*1.69*	*Cum*
	Section 3-3	*2*	*2.95*	*1.146*	*0.150*	*1.01*	*Cum*
	Section 5-5	*2*	*2.85*	*2.390*	*0.150*	*2.04*	*Cum*
	Section 6-6	*2*	*1.23*	*1.146*	*0.150*	*0.42*	*Cum*
	Toe Wall D/S Portion	*1*	*7.88*	*0.750*	*0.300*	*1.77*	*Cum*
	Toe Wall D/S Portion	*1*	*7.58*	*0.450*	*0.600*	*2.05*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**18.99**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.29*	*0.450*	*0.450*	*0.52*	*Cum*
		2	*1.29*	*1.195*	*2.484*	*7.64*	*Cum*
		2	*1.29*	*2.090*	*0.850*	*4.57*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.738*	*0.960*	*6.02*	*Cum*
		2	*4.25*	*1.176*	*0.850*	*8.50*	*Cum*
	Section 3-3	*2*	*2.57*	*0.450*	*0.450*	*1.04*	*Cum*
		2	*2.57*	*0.648*	*0.660*	*2.20*	*Cum*
		2	*2.57*	*0.996*	*0.650*	*3.33*	*Cum*
	Section 5-5	*2*	*2.80*	*0.450*	*0.450*	*1.14*	*Cum*
		2	*2.80*	*1.195*	*2.484*	*16.65*	*Cum*
		2	*2.80*	*2.090*	*0.600*	*7.03*	*Cum*
	Section 6-6	*2*	*1.76*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.76*	*0.648*	*0.660*	*1.51*	*Cum*
		2	*1.76*	*0.996*	*0.600*	*2.10*	*Cum*
	Floor	*1*	*0.738*	*3.000*	*1.150*	*2.54*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*1.76*	*3.000*	*0.600*	*3.16*	*Cum*
		1	*0.73*	*3.000*	*0.250*	*0.54*	*Cum*
		1	*5.48*	*3.000*	*0.850*	*13.96*	*Cum*
		1	*0.20*	*3.000*	*0.550*	*0.33*	*Cum*
		1	*0.65*	*3.000*	*0.400*	*0.78*	*Cum*
		1	*1.30*	*3.000*	*0.650*	*2.54*	*Cum*
		1	*0.05*	*3.000*	*0.625*	*0.09*	*Cum*
		1	*1.70*	*3.000*	*0.600*	*3.06*	*Cum*
		1	*0.86*	*3.000*	*1.650*	*4.23*	
	Crest	*1*	*1.17*	*3.000*	*1.984*	*6.98*	*Cum*
	TOTAL					**102.90**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*3.000*	*0.150*	*0.38*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.89*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.89*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**1.01**	**Cum**
		0.00					
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.25% of M-20	**102.90**	**0.002**	**0.206**	**7850.0**	**1615.58**	**Kg**
	Total Weight in Metric Tonne					**1.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.29*		*0.450*	*2.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.29*		*2.484*	*12.79*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*1.29*		*0.850*	*4.38*	*Sqm*
		4		*2.090*	*0.850*	*7.11*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.960*	*16.32*	*Sqm*
		4		*0.738*	*0.960*	*2.83*	*Sqm*
		4	*4.25*		*0.850*	*14.45*	*Sqm*
		4		*1.176*	*0.850*	*4.00*	*Sqm*
	Section 3-3	*4*	*2.57*		*0.450*	*4.63*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.57*		*0.660*	*6.79*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*2.57*		*0.650*	*6.69*	*Sqm*
		4		*0.996*	*0.650*	*2.59*	*Sqm*
	Section 5-5	*4*	*2.80*		*0.450*	*5.05*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.80*		*2.484*	*27.87*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*2.80*		*0.600*	*6.73*	*Sqm*
		4		*2.090*	*0.600*	*5.02*	*Sqm*
	Section 6-6	*4*	*1.76*		*0.450*	*3.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.76*		*0.660*	*4.65*	*Sqm*
		4		*0.648*	*0.660*	*1.71*	*Sqm*
		4	*1.76*		*0.600*	*4.22*	*Sqm*
		4		*0.996*	*0.600*	*2.39*	*Sqm*
	Floor	*2*	*0.74*		*1.150*	*1.70*	*Sqm*
		2		*3.000*	*1.150*	*6.90*	*Sqm*
		2	*1.76*		*0.600*	*2.11*	*Sqm*
		2		*3.000*	*0.600*	*3.60*	*Sqm*
		2	*5.48*		*0.850*	*9.31*	*Sqm*
		2		*3.000*	*0.850*	*5.10*	*Sqm*
		2	*0.20*		*0.550*	*0.22*	*Sqm*
		2		*3.000*	*0.550*	*3.30*	*Sqm*
		2	*0.65*		*0.400*	*0.52*	*Sqm*
		2		*3.000*	*0.400*	*2.40*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.300*		*0.650*	*1.69*	*Sqm*
		2		*3.000*	*0.650*	*3.90*	*Sqm*
		2	*0.050*		*0.625*	*0.06*	*Sqm*
		2		*3.000*	*0.625*	*3.75*	*Sqm*
		2	*1.70*		*0.600*	*2.04*	*Sqm*
		2		*3.000*	*0.600*	*3.60*	*Sqm*
		2	*0.855*		*1.65*	*2.82*	*Sqm*
		2		*3.000*	*1.650*	*9.90*	*Sqm*
	Crest	*2*	*1.17*		*1.984*	*4.65*	*Sqm*
		2		*3.000*	*1.984*	*11.90*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.88*		*0.300*	*4.73*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*7.58*		*0.600*	*9.10*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**285.71**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.520*		*12.60*	*Sqm*
	TOTAL					**12.60**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*2.400*	*0.300*	**1.80**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*2.400*	*0.150*	**1.80**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.89*	*0.450*		*6.25*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.89*	*0.450*		*6.25*	*Sqm*
	TOTAL					**12.50**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		18.869		18.87	**Cum**
	Abutment						
	Section 1-1	2	*1.43*	*0.887*		*2.543*	*Cum*
	Section 2-2	2	*4.25*	*1.000*		*8.500*	*Cum*
	Section 3-3	2	*2.95*	*0.952*		*5.617*	*Cum*
	Section 5-5	2	*2.85*	*0.903*		*5.141*	*Cum*
	Section 6-6	2	*1.23*	*0.952*		*2.342*	*Cum*
	D/S protection	2					
	Toe wall	2	*7.88*	*0.150*	*0.600*	*2.364*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**45.83**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.6.650 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.31*	*1.932*	*1.645*	*8.327*	*Cum*
	Section 2-2	*2*	*3.50*	*1.720*	*1.645*	*19.806*	*Cum*
	Section 3-3	*2*	*4.05*	*1.600*	*1.445*	*18.727*	*Cum*
	Section 5-5	*2*	*2.47*	*2.082*	*1.645*	*16.902*	*Cum*
	Section 6-6	*2*	*0.68*	*1.080*	*1.445*	*2.107*	*Cum*
	U/S Key Floor	*1*	*0.82*	*5.500*	*0.450*	*2.030*	*Cum*
	U/S Floor	*1*	*2.50*	*5.500*	*2.270*	*31.213*	*Cum*
	D/S Floor	*1*	*3.50*	*5.500*	*1.050*	*20.213*	*Cum*
		1	*1.00*	*2.000*	*0.700*	*1.400*	*Cum*
		1	*3.35*	*2.000*	*0.650*	*4.355*	*Cum*
	D/S Key Floor	*1*	*0.71*	*5.500*	*1.200*	*4.703*	*Cum*
	Toe Wall D/S Portion	*1*	*6.25*	*0.750*	*0.900*	*4.219*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.75*	*0.900*	*0.750*	*1.181*	*Cum*
						135.18	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*0.89*	*2.000*	*0.150*	*0.27*	*Cum*
		1	*5.20*	*2.000*	*0.150*	*1.56*	*Cum*
		1	*0.49*	*2.000*	*0.150*	*0.15*	*Cum*
		1	*0.57*	*2.000*	*0.150*	*0.17*	*Cum*
		1	*0.07*	*2.000*	*0.150*	*0.02*	*Cum*
		1	*2.17*	*2.000*	*0.150*	*0.65*	*Cum*
		1	*1.17*	*2.000*	*0.150*	*0.35*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.31*	*1.932*	*0.150*	*0.76*	*Cum*
	Section 2-2	*2*	*3.50*	*1.720*	*0.150*	*1.81*	*Cum*
	Section 3-3	*2*	*4.05*	*1.600*	*0.150*	*1.94*	*Cum*
	Section 5-5	*2*	*2.47*	*2.082*	*0.150*	*1.54*	*Cum*
	Section 6-6	*2*	*0.68*	*1.080*	*0.150*	*0.22*	*Cum*
	Toe Wall D/S Portion	*1*	*6.25*	*0.750*	*0.300*	*1.41*	*Cum*
	Toe Wall D/S Portion	*1*	*5.95*	*0.450*	*0.600*	*1.61*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.75*	*0.900*	*0.150*	*0.24*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**13.64**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.16*	*0.450*	*0.450*	*0.47*	*Cum*
		2	*1.16*	*1.041*	*1.970*	*4.77*	*Cum*
		2	*1.16*	*1.782*	*0.700*	*2.90*	*Cum*
	Section 2-2	*2*	*3.50*	*0.820*	*0.500*	*2.87*	*Cum*
		2	*3.50*	*1.045*	*0.750*	*5.49*	*Cum*
		2	*3.50*	*1.420*	*1.350*	*13.42*	*Cum*
	Section 3-3	*2*	*3.74*	*0.820*	*0.500*	*3.06*	*Cum*
		2	*3.74*	*0.985*	*0.550*	*4.05*	*Cum*
		2	*3.74*	*1.300*	*1.550*	*15.05*	*Cum*
	Section 5-5	*2*	*2.42*	*0.450*	*0.450*	*0.98*	*Cum*
		2	*2.42*	*1.041*	*1.970*	*9.94*	*Cum*
		2	*2.42*	*1.782*	*0.700*	*6.05*	*Cum*
	Section 6-6	*2*	*1.40*	*0.450*	*0.450*	*0.57*	*Cum*
		2	*1.40*	*0.615*	*0.550*	*0.95*	*Cum*
		2	*1.40*	*0.930*	*0.500*	*1.30*	*Cum*
	deduction for M 25 grade of concrete	*2*	*0.82*	*5.500*	*0.300*	*-2.71*	*Cum*
	Floor	*1*	*0.65*	*2.000*	*0.800*	*1.04*	*Cum*
		1	*6.00*	*2.000*	*0.700*	*8.40*	*Cum*
		1	*0.25*	*2.000*	*0.350*	*0.18*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*2.000*	*0.450*	*0.18*	*Cum*
		1	*0.80*	*2.000*	*0.550*	*0.88*	*Cum*
		1	*0.05*	*2.000*	*0.525*	*0.05*	*Cum*
		1	*3.30*	*2.000*	*0.500*	*3.30*	*Cum*
		1	*0.71*	*2.000*	*1.050*	*1.50*	*Cum*
	Crest	*1*	*1.05*	*2.000*	*1.570*	*3.31*	*Cum*
	TOTAL					**87.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*2.000*	*0.150*	*0.24*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*7.79*	*0.450*	*0.050*	*0.18*	*Cum*
	On Abutment Top (Right Side)	*1*	*7.79*	*0.450*	*0.050*	*0.18*	*Cum*
	Slab Bridge						
	Slab	*1*	*2.80*	*5.500*	*0.328*	*5.05*	*Cum*
	Wearing coat	*1*	*2.80*	*4.500*	*0.070*	*0.88*	*Cum*
	Dirt wall	*2*	*0.40*	*5.500*	*0.300*	*1.32*	*Cum*
	300 mm thick pedastal	*2*	*0.82*	*5.500*	*0.300*	*2.71*	*Cum*
	TOTAL					**10.55**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*3.26*		*1.578*	*159.5*	*Kg*
a2	*10*	*14*	*5.90*		*0.616*	*50.9*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*3.18*		*0.616*	*37.2*	*Kg*
a5	*10*	*10*	*5.80*		*0.616*	*35.8*	*Kg*
x1	*12*	*48*	*2.50*		*0.888*	*106.6*	*Kg*
x2	*16*	*48*	*1.37*		*1.578*	*103.4*	*Kg*
x3	*12*	*24*	*2.70*		*0.888*	*57.5*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**87.99**	**0.003**	**0.264**	**7850.0**	**2072.1**	**Kg**
	Total Reinforcement Steel (in kg)					*2629.6*	*Kg*
	Total Weight in Metric Tonne					**2.63**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.16*		*0.450*	*2.09*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.16*		*1.970*	*9.16*	*Sqm*
		4		*1.041*	*1.970*	*8.20*	*Sqm*
		4	*1.16*		*0.700*	*3.26*	*Sqm*
		4		*1.782*	*0.700*	*4.99*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.500*	*7.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.50*		*0.750*	*10.50*	*Sqm*
		4		*1.045*	*0.750*	*3.14*	*Sqm*
		4	*3.50*		*1.350*	*18.90*	*Sqm*
		4		*1.420*	*1.350*	*7.67*	*Sqm*
	Section 3-3	*4*	*3.74*		*0.500*	*7.47*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.74*		*0.550*	*8.22*	*Sqm*
		4		*0.985*	*0.550*	*2.17*	*Sqm*
		4	*3.74*		*1.550*	*23.16*	*Sqm*
		4		*1.300*	*1.550*	*8.06*	*Sqm*
	Section 5-5	*4*	*2.42*		*0.450*	*4.36*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.42*		*1.970*	*19.10*	*Sqm*
		4		*1.041*	*1.970*	*8.20*	*Sqm*
		4	*2.42*		*0.700*	*6.79*	*Sqm*
		4		*1.782*	*0.700*	*4.99*	*Sqm*
	Section 6-6	*4*	*1.40*		*0.450*	*2.52*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.40*		*0.550*	*3.08*	*Sqm*
		4		*0.615*	*0.550*	*1.35*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		4	*1.40*		*0.500*	*2.80*	*Sqm*
		4		*0.930*	*0.500*	*1.86*	*Sqm*
	Floor	*2*	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*2.000*	*0.800*	*3.20*	*Sqm*
		2	*6.00*		*0.700*	*8.40*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*0.25*		*0.350*	*0.18*	*Sqm*
		2		*2.000*	*0.350*	*1.40*	*Sqm*
		2	*0.20*		*0.450*	*0.18*	*Sqm*
		2		*2.000*	*0.450*	*1.80*	*Sqm*
		2	*0.80*		*0.550*	*0.88*	*Sqm*
		2		*2.000*	*0.550*	*2.20*	*Sqm*
		2	*0.71*		*1.050*	*1.50*	*Sqm*
		2		*2.000*	*1.050*	*4.20*	*Sqm*
	Crest	*2*	*1.05*		*1.570*	*3.31*	*Sqm*
		2		*2.000*	*1.570*	*6.28*	*Sqm*
	Bridge Slab	*2*	*2.80*		*0.33*	*1.84*	*Sqm*
		2		*5.50*	*0.33*	*3.61*	*Sqm*
		1	*2.80*	*5.50*		*15.40*	*Sqm*
	Dirt Wall	*2*	*0.40*		*0.30*	*0.24*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.25*		*0.300*	*3.75*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.95*		*0.600*	*7.14*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.900*	*0.150*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**261.57**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.142*		*7.50*	*Sqm*
	TOTAL					**7.50**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.400*	*0.300*	**0.74**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.400*	*0.150*	**0.74**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.79*	*0.450*		*3.50*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.79*	*0.450*		*3.50*	*Sqm*
	TOTAL					**7.01**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Floor	1		5.907		5.91	Cum
	Abutment						
	Section 1-1	2	1.31	*0.533*		*1.397*	*Cum*
	Section 2-2	2	3.50	*0.200*		*1.400*	*Cum*
	Section 3-3	2	4.05	*0.200*		*1.620*	*Cum*
	Section 5-5	2	2.47	*0.533*		*2.631*	*Cum*
	Section 6-6	2	0.68	*0.200*		*0.270*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.25*	*0.150*	*0.600*	*1.875*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**15.41**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.7.315 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.42*	*2.154*	*2.842*	*17.416*	*Cum*
	Section 2-2	*2*	*4.00*	*1.242*	*2.842*	*28.238*	*Cum*
	Section 3-3	*2*	*3.70*	*1.122*	*2.642*	*21.936*	*Cum*
	Section 5-5	*2*	*2.57*	*2.304*	*2.842*	*33.657*	*Cum*
	Section 6-6	*2*	*1.11*	*1.122*	*2.642*	*6.569*	*Cum*
	U/S Key Floor	*1*	*0.68*	*1.410*	*1.050*	*0.999*	*Cum*
	U/S Floor	*1*	*1.75*	*1.410*	*2.720*	*6.712*	*Cum*
	D/S Floor	*1*	*2.50*	*1.410*	*0.950*	*3.349*	*Cum*
		1	*2.00*	*1.410*	*0.750*	*2.115*	*Cum*
	D/S Key Floor	*1*	*0.83*	*1.410*	*1.650*	*1.919*	*Cum*
	Toe Wall D/S Portion	*1*	*5.87*	*0.750*	*0.900*	*3.962*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						128.67	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*0.78*	*2.000*	*0.150*	*0.23*	*Cum*
		1	*0.03*	*2.000*	*0.150*	*0.01*	*Cum*
		1	*0.07*	*2.000*	*0.150*	*0.02*	*Cum*
		1	*4.25*	*2.000*	*0.150*	*1.27*	*Cum*
		1	*0.35*	*2.000*	*0.150*	*0.11*	*Cum*
		1	*0.64*	*2.000*	*0.150*	*0.19*	*Cum*
		1	*0.78*	*2.000*	*0.150*	*0.23*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.04*	*1.608*	*0.150*	*0.50*	*Cum*
	Section 2-2	*2*	*3.20*	*1.242*	*0.150*	*1.19*	*Cum*
	Section 3-3	*2*	*1.50*	*1.122*	*0.150*	*0.50*	*Cum*
	Section 5-5	*2*	*2.68*	*1.758*	*0.150*	*1.42*	*Cum*
	Section 6-6	*2*	*1.11*	*1.122*	*0.150*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*6.46*	*0.750*	*0.300*	*1.45*	*Cum*
	Toe Wall D/S Portion	*1*	*6.16*	*0.450*	*0.600*	*1.66*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**10.58**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.89*	*0.450*	*0.450*	*0.36*	*Cum*
		2	*0.89*	*0.879*	*1.430*	*2.23*	*Cum*
		2	*0.89*	*1.458*	*0.550*	*1.42*	*Cum*
	Section 2-2	*2*	*3.20*	*0.450*	*0.450*	*1.30*	*Cum*
		2	*3.20*	*0.696*	*0.820*	*3.65*	*Cum*
		2	*3.20*	*1.092*	*0.550*	*3.84*	*Cum*
	Section 3-3	*2*	*1.16*	*0.450*	*0.450*	*0.47*	*Cum*
		2	*1.16*	*0.636*	*0.620*	*0.92*	*Cum*
		2	*1.16*	*0.972*	*0.500*	*1.13*	*Cum*
	Section 5-5	*2*	*2.64*	*0.450*	*0.450*	*1.07*	*Cum*
		2	*2.64*	*0.879*	*1.430*	*6.63*	*Cum*
		2	*2.64*	*1.458*	*0.500*	*3.85*	*Cum*
	Section 6-6	*2*	*1.67*	*0.450*	*0.450*	*0.68*	*Cum*
		2	*1.67*	*0.636*	*0.620*	*1.32*	*Cum*
		2	*1.67*	*0.972*	*0.500*	*1.62*	*Cum*
	Floor	*1*	*0.63*	*2.000*	*0.700*	*0.88*	*Cum*
		1	*1.04*	*2.000*	*0.500*	*1.04*	*Cum*
		1	*3.97*	*2.000*	*0.550*	*4.36*	*Cum*
		1	*0.20*	*2.000*	*0.400*	*0.16*	*Cum*
		1	*0.28*	*2.000*	*0.250*	*0.14*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*1.80*	*2.000*	*0.500*	*1.80*	*Cum*
		1	*0.63*	*2.000*	*0.700*	*0.88*	*Cum*
	Crest	*1*	*0.81*	*2.000*	*0.995*	*1.61*	*Cum*
	TOTAL					**41.35**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*2.000*	*0.150*	*0.20*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.35*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.35*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.66**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**41.35**	**0.00**	**0.124**	**7850.0**	**973.77**	**Kg**
	Total Weight in Metric Tonne					**0.97**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.89*		*0.450*	*1.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.89*		*1.430*	*5.08*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*0.89*		*0.550*	*1.95*	*Sqm*
		4		*1.458*	*0.550*	*3.21*	*Sqm*
	Section 2-2	*4*	*3.20*		*0.450*	*5.76*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.20*		*0.820*	*10.50*	*Sqm*
		4		*0.696*	*0.820*	*2.28*	*Sqm*
		4	*3.20*		*0.550*	*7.04*	*Sqm*
		4		*1.092*	*0.550*	*2.40*	*Sqm*
	Section 3-3	*4*	*1.16*		*0.450*	*2.10*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.16*		*0.620*	*2.89*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*1.16*		*0.500*	*2.33*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 5-5	*4*	*2.64*		*0.450*	*4.75*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.64*		*1.430*	*15.10*	*Sqm*
		4		*0.879*	*1.430*	*5.03*	*Sqm*
		4	*2.64*		*0.500*	*5.28*	*Sqm*
		4		*1.458*	*0.500*	*2.92*	*Sqm*
	Section 6-6	*4*	*1.67*		*0.450*	*3.00*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.67*		*0.620*	*4.14*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*1.67*		*0.500*	*3.34*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*1.04*		*0.500*	*1.04*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*3.97*		*0.550*	*4.36*	*Sqm*
		2		*2.000*	*0.550*	*2.20*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.000*	*0.400*	*1.60*	*Sqm*
		2	*0.28*		*0.250*	*0.14*	*Sqm*
		2		*2.000*	*0.250*	*1.00*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
	Crest	*2*	*0.81*		*0.995*	*1.61*	*Sqm*
		2		*2.000*	*0.995*	*3.98*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.46*		*0.300*	*3.88*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.16*		*0.600*	*7.39*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**155.37**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.268*		*9.07*	*Sqm*
	TOTAL					**9.07**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.400*	*0.300*	**0.84**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.400*	*0.150*	**0.84**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.35*	*0.450*		*4.66*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.35*	*0.450*		*4.66*	*Sqm*
	TOTAL					**9.32**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.356		2.36	Cum
	Abutment						
	Section 1-1	2	*1.42*	*0.710*		*2.020*	*Cum*
	Section 2-2	2	*4.00*	*0.700*		*5.600*	*Cum*
	Section 3-3	2	*3.70*	*0.678*		*5.017*	*Cum*
	Section 5-5	2	*2.57*	*0.710*		*3.649*	*Cum*
	Section 6-6	2	*1.11*	*0.678*		*1.502*	*Cum*
	Toe wall	2	*6.46*	*0.150*	*0.600*	*1.938*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**22.44**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 7.672 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.93*	*1.413*	*1.072*	*2.808*	*Cum*
	Section 2-2	*2*	*2.50*	*1.170*	*1.072*	*6.271*	*Cum*
	Section 3-3	*2*	*2.20*	*1.050*	*0.872*	*4.032*	*Cum*
	Section 5-5	*2*	*2.68*	*1.563*	*1.072*	*8.984*	*Cum*
	Section 6-6	*2*	*1.09*	*1.050*	*0.872*	*1.996*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.400*	*0.850*	*1.275*	*Cum*
	U/S Floor	*1*	*0.94*	*2.400*	*1.115*	*2.507*	*Cum*
	D/S Floor	*1*	*5.81*	*2.400*	*1.115*	*15.556*	*Cum*
		1	*3.00*	*2.400*	*0.915*	*6.584*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.400*	*0.850*	*1.275*	*Cum*
	Toe Wall D/S Portion	*1*	*6.80*	*0.750*	*0.900*	*4.590*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						57.68	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.400*	*0.150*	*0.20*	*Cum*
		1	*0.78*	*2.400*	*0.150*	*0.28*	*Cum*
		1	*3.82*	*2.400*	*0.150*	*1.37*	*Cum*
		1	*0.28*	*2.400*	*0.150*	*0.10*	*Cum*
		1	*0.95*	*2.400*	*0.150*	*0.34*	*Cum*
		1	*0.78*	*2.400*	*0.150*	*0.28*	*Cum*
		1	*0.54*	*2.400*	*0.150*	*0.20*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.93*	*1.413*	*0.150*	*0.39*	*Cum*
	Section 2-2	*2*	*2.50*	*1.170*	*0.150*	*0.88*	*Cum*
	Section 3-3	*2*	*2.20*	*1.050*	*0.150*	*0.69*	*Cum*
	Section 5-5	*2*	*2.68*	*1.563*	*0.150*	*1.26*	*Cum*
	Section 6-6	*2*	*1.09*	*1.050*	*0.150*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*6.80*	*0.750*	*0.300*	*1.53*	*Cum*
	Toe Wall D/S Portion	*1*	*6.50*	*0.450*	*0.600*	*1.76*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**10.70**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.78*	*0.450*	*0.450*	*0.31*	*Cum*
		2	*0.78*	*0.782*	*1.105*	*1.34*	*Cum*
		2	*0.78*	*1.263*	*0.500*	*0.98*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.660*	*0.700*	*2.31*	*Cum*
		2	*2.50*	*1.020*	*0.500*	*2.55*	*Cum*
	Section 3-3	*2*	*1.87*	*0.450*	*0.450*	*0.76*	*Cum*
		2	*1.87*	*0.600*	*0.500*	*1.12*	*Cum*
		2	*1.87*	*0.900*	*0.500*	*1.68*	*Cum*
	Section 5-5	*2*	*2.64*	*0.450*	*0.450*	*1.07*	*Cum*
		2	*2.64*	*0.782*	*1.105*	*4.55*	*Cum*
		2	*2.64*	*1.263*	*0.500*	*3.33*	*Cum*
	Section 6-6	*2*	*1.57*	*0.450*	*0.450*	*0.64*	*Cum*
		2	*1.57*	*0.600*	*0.500*	*0.94*	*Cum*
		2	*1.57*	*0.900*	*0.500*	*1.41*	*Cum*
	Floor	*1*	*0.63*	*2.400*	*0.700*	*1.05*	*Cum*
		1	*4.20*	*2.400*	*0.650*	*6.55*	*Cum*
		1	*0.20*	*2.400*	*0.350*	*0.17*	*Cum*
		1	*0.50*	*2.400*	*0.200*	*0.24*	*Cum*
		1	*2.30*	*2.400*	*0.500*	*2.76*	*Cum*
		1	*0.63*	*2.400*	*0.700*	*1.05*	*Cum*
	Crest	*1*	*0.71*	*2.400*	*0.690*	*1.17*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**37.00**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*2.400*	*0.150*	*0.22*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*12.27*	*0.450*	*0.050*	*0.28*	*Cum*
	On Abutment Top (Right Side)	*1*	*12.27*	*0.450*	*0.050*	*0.28*	*Cum*
	TOTAL					**0.77**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**37.00**	**0.00**	**0.111**	**7850.0**	**871.44**	**Kg**
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.78*		*0.450*	*1.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.78*		*1.105*	*3.43*	*Sqm*
		4		*0.782*	*1.105*	*3.45*	*Sqm*
		4	*0.78*		*0.500*	*1.55*	*Sqm*
		4		*1.263*	*0.500*	*2.53*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.700*	*7.00*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*1.020*	*0.500*	*2.04*	*Sqm*
	Section 3-3	*4*	*1.87*		*0.450*	*3.37*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.87*		*0.500*	*3.74*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.87*		*0.500*	*3.74*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.64*		*0.450*	*4.75*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.64*		*1.105*	*11.66*	*Sqm*
		4		*0.782*	*1.105*	*3.45*	*Sqm*
		4	*2.64*		*0.500*	*5.27*	*Sqm*
		4		*1.263*	*0.500*	*2.53*	*Sqm*
	Section 6-6	*4*	*1.57*		*0.450*	*2.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.57*		*0.500*	*3.14*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.57*		*0.500*	*3.14*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.400*	*0.700*	*3.36*	*Sqm*
		2	*4.20*		*0.650*	*5.46*	*Sqm*
		2		*2.400*	*0.650*	*3.12*	*Sqm*
		2	*0.20*		*0.350*	*0.14*	*Sqm*
		2		*2.400*	*0.350*	*1.68*	*Sqm*
		2	*0.50*		*0.200*	*0.20*	*Sqm*
		2		*2.400*	*0.200*	*0.96*	*Sqm*
		2	*2.300*		*0.500*	*2.30*	*Sqm*
		2		*2.400*	*0.500*	*2.40*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.400*	*0.700*	*3.36*	*Sqm*
	Crest	*2*	*0.71*		*0.690*	*0.97*	*Sqm*
		2		*2.400*	*0.690*	*3.31*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.80*		*0.300*	*4.08*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.50*		*0.600*	*7.80*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**139.38**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.230*		*8.92*	*Sqm*
	TOTAL					**8.92**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.800*	*0.300*	**1.08**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.800*	*0.150*	**1.08**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*12.27*	*0.450*		*5.52*	*Sqm*
	On Abutment Top (Right Side)	*1*	*12.27*	*0.450*		*5.52*	*Sqm*
	TOTAL					**11.04**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.154		1.15	Cum
	Abutment						
	Section 1-1	2	*0.93*	*0.256*		*0.475*	*Cum*
	Section 2-2	2	*2.50*	*0.255*		*1.275*	*Cum*
	Section 3-3	2	*2.20*	*0.255*		*1.123*	*Cum*
	Section 5-5	2	*2.68*	*0.256*		*1.373*	*Cum*
	Section 6-6	2	*1.09*	*0.255*		*0.556*	*Cum*
	Toe wall	2	*6.80*	*0.150*	*0.600*	*2.040*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**8.36**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH. 9.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1	66.09			**66.09**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.57*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.54*	*1.72*	*0.15*	*1.31*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.49**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.83*	*1.36*	*4.87*	*Cum*
		2	*2.16*	*1.42*	*0.50*	*3.06*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*1.19*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.19*	*0.62*	*0.55*	*0.80*	*Cum*
		2	*1.19*	*0.93*	*0.50*	*1.10*	*Cum*
	Section 5-5	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.83*	*1.36*	*5.63*	*Cum*
		2	*2.50*	*1.42*	*0.50*	*3.54*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.85*	*1.46*	*0.95*	*1.18*	*Cum*
	TOTAL					**37.04**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.46*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	37.04	0.30%	0.11	7850	872.22	Kg
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.16*		*0.45*	*3.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*1.36*	*11.77*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.45*	*2.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.19*		*0.55*	*2.61*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.19*		*0.50*	*2.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*1.36*	*13.59*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.8505*		*0.952*	*1.62*	*Sqm*
		2		*1.46*	*0.952*	*2.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	TOTAL					**9.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		*42.206*		*42.21*	**Cum**
	TOTAL					**42.21**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 11.034 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.26*	*1.902*	*1.770*	*8.477*	*Cum*
	Section 2-2	*2*	*3.25*	*1.170*	*1.770*	*13.453*	*Cum*
	Section 3-3	*2*	*2.20*	*1.050*	*1.570*	*7.260*	*Cum*
	Section 5-5	*2*	*2.37*	*2.052*	*1.770*	*17.201*	*Cum*
	Section 6-6	*2*	*1.00*	*1.050*	*1.570*	*3.297*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.050*	*0.850*	*0.558*	*Cum*
	U/S Floor	*1*	*2.75*	*1.050*	*2.220*	*6.410*	*Cum*
	D/S Floor	*1*	*3.25*	*1.050*	*0.900*	*3.071*	*Cum*
		1	*2.80*	*1.050*	*0.700*	*2.058*	*Cum*
	D/S Key Floor	*1*	*0.75*	*1.050*	*1.350*	*1.063*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.750*	*0.900*	*3.476*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						67.90	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.050*	*0.150*	*0.09*	*Cum*
		1	*0.73*	*1.050*	*0.150*	*0.11*	*Cum*
		1	*0.47*	*1.050*	*0.150*	*0.07*	*Cum*
		1	*0.14*	*1.050*	*0.150*	*0.02*	*Cum*
		1	*4.75*	*1.050*	*0.150*	*0.75*	*Cum*
		1	*0.42*	*1.050*	*0.150*	*0.07*	*Cum*
		1	*0.87*	*1.050*	*0.150*	*0.14*	*Cum*
		1	*1.34*	*1.050*	*0.150*	*0.21*	*Cum*
		1	*0.54*	*1.050*	*0.150*	*0.09*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.26*	*1.902*	*0.150*	*0.72*	*Cum*
	Section 2-2	*2*	*3.25*	*1.170*	*0.150*	*1.14*	*Cum*
	Section 3-3	*2*	*2.20*	*1.050*	*0.150*	*0.69*	*Cum*
	Section 5-5	*2*	*2.37*	*2.052*	*0.150*	*1.46*	*Cum*
	Section 6-6	*2*	*1.00*	*1.050*	*0.150*	*0.32*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.750*	*0.300*	*1.16*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.450*	*0.600*	*1.31*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**9.28**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.26*	*0.450*	*0.450*	*0.51*	*Cum*
		2	*1.26*	*1.026*	*1.920*	*4.96*	*Cum*
		2	*1.26*	*1.752*	*0.650*	*2.87*	*Cum*
	Section 2-2	*2*	*3.25*	*0.450*	*0.450*	*1.32*	*Cum*
		2	*3.25*	*0.660*	*0.700*	*3.00*	*Cum*
		2	*3.25*	*1.020*	*0.650*	*4.31*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.550*	*1.88*	*Cum*
	Section 5-5	*2*	*2.32*	*0.450*	*0.450*	*0.94*	*Cum*
		2	*2.32*	*1.026*	*1.920*	*9.16*	*Cum*
		2	*2.32*	*1.752*	*0.550*	*4.48*	*Cum*
	Section 6-6	*2*	*1.53*	*0.450*	*0.450*	*0.62*	*Cum*
		2	*1.53*	*0.600*	*0.500*	*0.92*	*Cum*
		2	*1.53*	*0.900*	*0.550*	*1.51*	*Cum*
	Floor	*1*	*0.63*	*1.050*	*0.700*	*0.46*	*Cum*
		1	*1.40*	*1.050*	*0.550*	*0.81*	*Cum*
		1	*0.10*	*1.050*	*0.600*	*0.06*	*Cum*
		1	*4.50*	*1.050*	*0.650*	*3.07*	*Cum*
		1	*0.30*	*1.050*	*0.277*	*0.09*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*1.050*	*0.453*	*0.10*	*Cum*
		1	*2.30*	*1.050*	*0.550*	*1.33*	*Cum*
		1	*0.75*	*1.050*	*1.200*	*0.95*	*Cum*
	Crest	*1*	*1.00*	*1.050*	*1.490*	*1.56*	*Cum*
	TOTAL					**46.79**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.050*	*0.150*	*0.12*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.95*	*0.450*	*0.050*	*0.25*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.95*	*0.450*	*0.050*	*0.25*	*Cum*
	TOTAL					**0.61**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**46.79**	**0.00**	**0.140**	**7850.0**	**1101.95**	**Kg**
	Total Weight in Metric Tonne					**1.10**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.26*		*0.450*	*2.27*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.26*		*1.920*	*9.67*	*Sqm*
		4		*1.026*	*1.920*	*7.88*	*Sqm*
		4	*1.26*		*0.650*	*3.27*	*Sqm*
		4		*1.752*	*0.650*	*4.56*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.450*	*5.85*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.25*		*0.700*	*9.09*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.25*		*0.650*	*8.44*	*Sqm*
		4		*1.020*	*0.650*	*2.65*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.550*	*4.18*	*Sqm*
		4		*0.900*	*0.550*	*1.98*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.450*	*4.18*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.32*		*1.920*	*17.85*	*Sqm*
		4		*1.026*	*1.920*	*7.88*	*Sqm*
		4	*2.32*		*0.550*	*5.11*	*Sqm*
		4		*1.752*	*0.550*	*3.85*	*Sqm*
	Section 6-6	*4*	*1.53*		*0.450*	*2.75*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.53*		*0.500*	*3.05*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.53*		*0.550*	*3.36*	*Sqm*
		4		*0.900*	*0.550*	*1.98*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.050*	*0.700*	*1.47*	*Sqm*
		2	*1.40*		*0.550*	*1.54*	*Sqm*
		2		*1.050*	*0.550*	*1.16*	*Sqm*
		2	*4.50*		*0.650*	*5.85*	*Sqm*
		2		*1.050*	*0.650*	*1.37*	*Sqm*
		2	*0.30*		*0.277*	*0.17*	*Sqm*
		2		*1.050*	*0.277*	*0.58*	*Sqm*
		2	*0.20*		*0.453*	*0.18*	*Sqm*
		2		*1.050*	*0.453*	*0.95*	*Sqm*
		2	*2.300*		*0.550*	*2.53*	*Sqm*
		2		*1.050*	*0.550*	*1.16*	*Sqm*
		2	*0.75*		*1.200*	*1.80*	*Sqm*
		2		*1.050*	*1.200*	*2.52*	*Sqm*
	Crest	*2*	*1.00*		*1.490*	*2.98*	*Sqm*
		2		*1.050*	*1.490*	*3.13*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall D/S Portion	*2*	*5.15*		*0.300*	*3.09*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.85*		*0.600*	*5.82*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**169.85**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.450*	*0.300*	**0.24**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.450*	*0.150*	**0.24**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.95*	*0.450*		*4.93*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.95*	*0.450*		*4.93*	*Sqm*
	TOTAL					**9.85**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.872		5.87	Cum
	Abutment						
	Section 1-1	2	*1.26*	*0.589*		*1.482*	*Cum*
	Section 2-2	2	*3.25*	*0.576*		*3.742*	*Cum*
	Section 3-3	2	*2.20*	*0.577*		*2.541*	*Cum*
	Section 5-5	2	*2.37*	*0.589*		*2.787*	*Cum*
	Section 6-6	2	*1.00*	*0.577*		*1.154*	*Cum*
	Toe wall	2	*5.15*	*0.150*	*0.600*	*1.545*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**19.44**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.11.650 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.15*	*1.658*	*1.537*	*5.872*	*Cum*
	Section 2-2	*2*	*3.00*	*1.110*	*1.537*	*10.236*	*Cum*
	Section 3-3	*2*	*1.70*	*0.990*	*1.337*	*4.500*	*Cum*
	Section 5-5	*2*	*2.21*	*1.808*	*1.537*	*12.260*	*Cum*
	Section 6-6	*2*	*0.91*	*0.990*	*1.337*	*2.409*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.200*	*0.850*	*0.638*	*Cum*
	U/S Floor	*1*	*2.00*	*1.200*	*1.762*	*4.229*	*Cum*
	D/S Floor	*1*	*3.00*	*1.200*	*0.850*	*3.060*	*Cum*
		1	*2.00*	*1.200*	*0.650*	*1.560*	*Cum*
	D/S Key Floor	*1*	*0.65*	*1.200*	*0.650*	*0.507*	*Cum*
	Toe Wall D/S Portion	*1*	*5.00*	*0.750*	*0.900*	*3.375*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
	TOTAL					**50.00**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
		1	*0.78*	*1.200*	*0.150*	*0.14*	*Cum*
		1	*4.38*	*1.200*	*0.150*	*0.79*	*Cum*
		1	*0.28*	*1.200*	*0.150*	*0.05*	*Cum*
		1	*0.29*	*1.200*	*0.150*	*0.05*	*Cum*
		1	*0.89*	*1.200*	*0.150*	*0.16*	*Cum*
		1	*0.54*	*1.200*	*0.150*	*0.10*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.15*	*1.658*	*0.150*	*0.57*	*Cum*
	Section 2-2	*2*	*3.00*	*1.110*	*0.150*	*1.00*	*Cum*
	Section 3-3	*2*	*1.70*	*0.990*	*0.150*	*0.50*	*Cum*
	Section 5-5	*2*	*2.21*	*1.808*	*0.150*	*1.20*	*Cum*
	Section 6-6	*2*	*0.91*	*0.990*	*0.150*	*0.27*	*Cum*
	Toe Wall D/S Portion	*1*	*5.00*	*0.750*	*0.300*	*1.13*	*Cum*
	Toe Wall D/S Portion	*1*	*4.70*	*0.450*	*0.600*	*1.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**8.13**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.94*	*0.450*	*0.450*	*0.38*	*Cum*
		2	*0.94*	*0.904*	*1.514*	*2.57*	*Cum*
		2	*0.94*	*1.508*	*0.500*	*1.42*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.630*	*0.600*	*2.27*	*Cum*
		2	*3.00*	*0.960*	*0.500*	*2.88*	*Cum*
	Section 3-3	*2*	*1.43*	*0.450*	*0.450*	*0.58*	*Cum*
		2	*1.43*	*0.570*	*0.400*	*0.65*	*Cum*
		2	*1.43*	*0.840*	*0.500*	*1.20*	*Cum*
	Section 5-5	*2*	*2.16*	*0.450*	*0.450*	*0.88*	*Cum*
		2	*2.16*	*0.904*	*1.514*	*5.92*	*Cum*
		2	*2.16*	*1.508*	*0.500*	*3.26*	*Cum*
	Section 6-6	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*0.570*	*0.400*	*0.61*	*Cum*
		2	*1.33*	*0.840*	*0.500*	*1.12*	*Cum*
	Floor	*1*	*0.63*	*1.200*	*0.700*	*0.53*	*Cum*
		1	*5.00*	*1.200*	*0.500*	*3.00*	*Cum*
		1	*0.31*	*1.200*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*1.200*	*0.400*	*0.10*	*Cum*
		1	*1.80*	*1.200*	*0.500*	*1.08*	*Cum*
		1	*0.65*	*1.200*	*0.800*	*0.62*	*Cum*
	Crest	*1*	*0.84*	*1.200*	*1.184*	*1.19*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**32.08**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*1.200*	*0.150*	*0.12*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.62*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.62*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.55**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.08**	**0.00**	**0.096**	**7850.0**	**755.39**	**Kg**
	Total Weight in Metric Tonne					**0.76**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.94*		*0.450*	*1.69*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.94*		*1.514*	*5.70*	*Sqm*
		4		*0.904*	*1.514*	*5.47*	*Sqm*
		4	*0.94*		*0.500*	*1.88*	*Sqm*
		4		*1.508*	*0.500*	*3.02*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Section 3-3	*4*	*1.43*		*0.450*	*2.57*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.43*		*0.400*	*2.29*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*1.43*		*0.500*	*2.86*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Section 5-5	*4*	*2.16*		*0.450*	*3.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.16*		*1.514*	*13.09*	*Sqm*
		4		*0.904*	*1.514*	*5.47*	*Sqm*
		4	*2.16*		*0.500*	*4.32*	*Sqm*
		4		*1.508*	*0.500*	*3.02*	*Sqm*
	Section 6-6	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*0.400*	*2.13*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*1.33*		*0.500*	*2.66*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.200*	*0.700*	*1.68*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*1.200*	*0.200*	*0.48*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.200*	*0.400*	*0.96*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*1.200*	*0.500*	*1.20*	*Sqm*
		2	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*1.200*	*0.800*	*1.92*	*Sqm*
	Crest	*2*	*0.84*		*1.184*	*1.99*	*Sqm*
		2		*1.200*	*1.184*	*2.84*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.00*		*0.300*	*3.00*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.70*		*0.600*	*5.64*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**130.21**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.871*		*5.61*	*Sqm*
	TOTAL					**5.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.600*	*0.300*	**0.27**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.600*	*0.150*	**0.27**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.62*	*0.450*		*4.33*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.62*	*0.450*		*4.33*	*Sqm*
	TOTAL					**8.65**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		2.422		2.42	**Cum**
	Abutment						
	Section 1-1	2	*1.15*	*0.577*		*1.329*	*Cum*
	Section 2-2	2	*3.00*	*0.552*		*3.314*	*Cum*
	Section 3-3	2	*1.70*	*0.505*		*1.717*	*Cum*
	Section 5-5	2	*2.21*	*0.577*		*2.546*	*Cum*
	Section 6-6	2	*0.91*	*0.505*		*0.919*	*Cum*
	Toe wall	2	*5.00*	*0.150*	*0.600*	*1.500*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**14.02**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.11.979 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL	1		53.64		**53.64**	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.543*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.787*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*5.567*	*0.80*	*0.15*	*0.67*	*Cum*
		1	*0.283*	*0.80*	*0.15*	*0.03*	*Cum*
		1	*0.367*	*0.80*	*0.15*	*0.04*	*Cum*
		1	*0.895*	*0.80*	*0.15*	*0.11*	*Cum*
		1	*0.543*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.85*	*1.71*	*0.15*	*0.44*	*Cum*
	Section 2-2	*2*	*3.50*	*1.16*	*0.15*	*1.22*	*Cum*
	Section 3-3	*2*	*1.20*	*1.04*	*0.15*	*0.38*	*Cum*
	Section 5-5	*2*	*2.51*	*1.86*	*0.15*	*1.40*	*Cum*
	Section 6-6	*2*	*0.99*	*1.04*	*0.15*	*0.31*	*Cum*
	Toe Wall D/S Portion	*1*	*4.87*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.57*	*0.45*	*0.60*	*1.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**8.24**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.62*	*0.45*	*0.45*	*0.25*	*Cum*
		2	*0.62*	*0.93*	*1.60*	*1.86*	*Cum*
		2	*0.62*	*1.56*	*0.50*	*0.97*	*Cum*
	Section 2-2	*2*	*3.50*	*0.45*	*0.45*	*1.42*	*Cum*
		2	*3.50*	*0.66*	*0.69*	*3.17*	*Cum*
		2	*3.50*	*1.01*	*0.50*	*3.55*	*Cum*
	Section 3-3	*2*	*0.90*	*0.45*	*0.45*	*0.37*	*Cum*
		2	*0.90*	*0.60*	*0.49*	*0.53*	*Cum*
		2	*0.90*	*0.89*	*0.50*	*0.81*	*Cum*
	Section 5-5	*2*	*2.47*	*0.45*	*0.45*	*1.00*	*Cum*
		2	*2.47*	*0.93*	*1.60*	*7.38*	*Cum*
		2	*2.47*	*1.56*	*0.50*	*3.86*	*Cum*
	Section 6-6	*2*	*1.44*	*0.45*	*0.45*	*0.58*	*Cum*
		2	*1.44*	*0.60*	*0.49*	*0.84*	*Cum*
		2	*1.44*	*0.89*	*0.50*	*1.29*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*6.00*	*0.80*	*0.50*	*2.40*	*Cum*
		1	*0.50*	*0.80*	*0.20*	*0.08*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*1.80*	*0.80*	*0.50*	*0.72*	*Cum*
		1	*0.65*	*0.80*	*0.80*	*0.42*	*Cum*
	Crest	*1*	*0.99*	*0.80*	*1.21*	*0.96*	*Cum*
	TOTAL					**32.87**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.80*	*0.15*	*0.10*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.45*	*0.05*	*0.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.45*	*0.05*	*0.22*	*Sqm*
	TOTAL					**0.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**33.41**	**0.30%**	**0.10**	**7850**	**786.82**	**Kg**
	Total Weight in Metric Tonne					**0.79**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.62*		*0.45*	*1.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.62*		*1.60*	*4.00*	*Sqm*
		4		*0.93*	*1.60*	*5.98*	*Sqm*
		4	*0.62*		*0.50*	*1.25*	*Sqm*
		4		*1.56*	*0.50*	*3.13*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.45*	*6.30*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.50*		*0.69*	*9.66*	*Sqm*
		4		*0.66*	*0.69*	*1.81*	*Sqm*
		4	*3.50*		*0.50*	*7.00*	*Sqm*
		4		*1.01*	*0.50*	*2.03*	*Sqm*
	Section 3-3	*4*	*0.90*		*0.45*	*1.63*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.90*		*0.49*	*1.77*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*0.90*		*0.50*	*1.81*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Section 5-5	*4*	*2.47*		*0.45*	*4.45*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.47*		*1.60*	*15.84*	*Sqm*
		4		*0.93*	*1.60*	*5.98*	*Sqm*
		4	*2.47*		*0.50*	*4.94*	*Sqm*
		4		*1.56*	*0.50*	*3.13*	*Sqm*
	Section 6-6	*4*	*1.44*		*0.45*	*2.59*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.44*		*0.49*	*2.82*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*1.44*		*0.50*	*2.88*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*6.00*		*0.50*	*6.00*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*0.80*	*0.20*	*0.32*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.65*		*0.80*	*1.04*	*Sqm*
		2		*0.80*	*0.80*	*1.28*	*Sqm*
	Crest	*2*	*0.994*		*1.213*	*2.41*	*Sqm*
		2		*0.8*	*1.213*	*1.94*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.87*		*0.30*	*2.92*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.57*		*0.60*	*5.48*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**135.91**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.03*		*8.14*	*Sqm*
	TOTAL					**8.14**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.20*	*0.30*	**0.12**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.20*	*0.15*	**0.12**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.84*	*0.45*		*4.43*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.84*	*0.45*		*4.43*	*Sqm*
	TOTAL					**8.86**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		19.66		19.66	Cum
	TOTAL					**19.66**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.12.800 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*2.287*	*6.663*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*2.287*	*12.830*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*2.087*	*7.106*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*2.287*	*17.090*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*2.087*	*5.977*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*2.00*	*0.850*	*1.460*	*2.482*	*Cum*
	D/S Floor	*1*	*2.50*	*0.850*	*0.850*	*1.806*	*Cum*
		1	*2.50*	*0.850*	*0.650*	*1.381*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.900*	*3.179*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						60.77	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*4.07*	*0.850*	*0.150*	*0.52*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*0.850*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*0.150*	*0.44*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*0.150*	*0.84*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*0.150*	*0.51*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*0.150*	*1.12*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*0.150*	*0.43*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.300*	*1.06*	*Cum*
	Toe Wall D/S Portion	*1*	*4.41*	*0.450*	*0.600*	*1.19*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.819*	*1.230*	*1.67*	*Cum*
		2	*0.83*	*1.338*	*0.500*	*1.11*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.636*	*0.620*	*1.97*	*Cum*
		2	*2.50*	*0.972*	*0.500*	*2.43*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.576*	*0.420*	*0.93*	*Cum*
		2	*1.92*	*0.852*	*0.500*	*1.64*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.819*	*1.230*	*4.51*	*Cum*
		2	*2.24*	*1.338*	*0.500*	*3.00*	*Cum*
	Section 6-6	*2*	*1.35*	*0.450*	*0.450*	*0.55*	*Cum*
		2	*1.35*	*0.576*	*0.420*	*0.66*	*Cum*
		2	*1.35*	*0.852*	*0.500*	*1.15*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*4.50*	*0.850*	*0.500*	*1.91*	*Cum*
		1	*0.40*	*0.850*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*0.850*	*0.498*	*0.08*	*Cum*
		1	*2.30*	*0.850*	*0.500*	*0.98*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
	Crest	*1*	*0.74*	*0.850*	*0.890*	*0.56*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**26.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.51**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.99**	**0.00**	**0.081**	**7850.000**	**635.70**	**Kg**
	Total Weight in Metric Tonne					**0.64**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.49*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.230*	*4.07*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.620*	*6.20*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.46*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.420*	*3.23*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.92*		*0.500*	*3.85*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.230*	*11.02*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*2.24*		*0.500*	*4.48*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 6-6	*4*	*1.35*		*0.450*	*2.44*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*0.420*	*2.27*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.35*		*0.500*	*2.71*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*0.850*	*0.498*	*0.85*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.74*		*0.890*	*1.32*	*Sqm*
		2		*0.850*	*0.890*	*1.51*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.71*		*0.300*	*2.83*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.41*		*0.600*	*5.29*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**118.43**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.051*		*6.15*	*Sqm*
	TOTAL					**6.15**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	TOTAL					**8.59**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.662		1.66	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*0.943*		*1.845*	*Cum*
	Section 2-2	2	*2.50*	*0.679*		*3.394*	*Cum*
	Section 3-3	2	*1.70*	*0.519*		*1.763*	*Cum*
	Section 5-5	2	*2.28*	*0.943*		*4.300*	*Cum*
	Section 6-6	2	*1.43*	*0.519*		*1.482*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.71*	*0.150*	*0.600*	*1.413*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**16.13**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.13.868 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.94*	*1.324*	*1.334*	*3.326*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*1.334*	*7.004*	*Cum*
	Section 3-3	*2*	*1.95*	*0.930*	*1.134*	*4.113*	*Cum*
	Section 5-5	*2*	*2.06*	*1.474*	*1.334*	*8.113*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*1.134*	*1.730*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.800*	*0.850*	*0.425*	*Cum*
	U/S Floor	*1*	*1.75*	*0.800*	*1.307*	*1.830*	*Cum*
	D/S Floor	*1*	*2.50*	*0.800*	*1.307*	*2.614*	*Cum*
		1	*2.25*	*0.800*	*1.107*	*1.993*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.800*	*0.650*	*0.325*	*Cum*
	Toe Wall D/S Portion	*1*	*4.30*	*0.750*	*0.900*	*2.903*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.25*	*0.600*	*0.750*	*1.125*	*Cum*
	TOTAL					**35.50**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.800*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.800*	*0.150*	*0.09*	*Cum*
		1	*3.53*	*0.800*	*0.150*	*0.42*	*Cum*
		1	*0.28*	*0.800*	*0.150*	*0.03*	*Cum*
		1	*0.99*	*0.800*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*0.800*	*0.150*	*0.09*	*Cum*
		1	*0.54*	*0.800*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.94*	*1.324*	*0.150*	*0.37*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*0.150*	*0.79*	*Cum*
	Section 3-3	*2*	*1.95*	*0.930*	*0.150*	*0.54*	*Cum*
	Section 5-5	*2*	*2.06*	*1.474*	*0.150*	*0.91*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.30*	*0.750*	*0.300*	*0.97*	*Cum*
	Toe Wall D/S Portion	*1*	*4.00*	*0.450*	*0.600*	*1.08*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.600*	*0.150*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.300*	*0.600*	*0.45*	*Cum*
	TOTAL					**6.46**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.79*	*0.450*	*0.450*	*0.32*	*Cum*
		2	*0.79*	*0.737*	*0.957*	*1.11*	*Cum*
		2	*0.79*	*1.174*	*0.600*	*1.11*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.600*	*0.500*	*1.50*	*Cum*
		2	*2.50*	*0.900*	*0.500*	*2.25*	*Cum*
	Section 3-3	*2*	*1.71*	*0.450*	*0.450*	*0.69*	*Cum*
		2	*1.71*	*0.540*	*0.300*	*0.55*	*Cum*
		2	*1.71*	*0.780*	*0.500*	*1.33*	*Cum*
	Section 5-5	*2*	*2.02*	*0.450*	*0.450*	*0.82*	*Cum*
		2	*2.02*	*0.737*	*0.957*	*2.85*	*Cum*
		2	*2.02*	*1.174*	*0.500*	*2.37*	*Cum*
	Section 6-6	*2*	*1.21*	*0.450*	*0.450*	*0.49*	*Cum*
		2	*1.21*	*0.540*	*0.300*	*0.39*	*Cum*
		2	*1.21*	*0.780*	*0.500*	*0.94*	*Cum*
	Floor	*1*	*0.63*	*0.800*	*0.700*	*0.35*	*Cum*
		1	*4.25*	*0.800*	*0.500*	*1.70*	*Cum*
		1	*0.21*	*0.800*	*0.200*	*0.03*	*Cum*
		1	*0.20*	*0.800*	*0.400*	*0.06*	*Cum*
		1	*2.05*	*0.800*	*0.500*	*0.82*	*Cum*
		1	*0.63*	*0.800*	*0.700*	*0.35*	*Cum*
	Crest	*1*	*0.70*	*0.800*	*0.677*	*0.38*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**21.44**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.800*	*0.150*	*0.07*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*8.79*	*0.450*	*0.050*	*0.20*	*Cum*
	On Abutment Top (Right Side)	*1*	*8.79*	*0.450*	*0.050*	*0.20*	*Cum*
	TOTAL					**0.47**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**21.44**	**0.00**	**0.064**	**7850.0**	**504.86**	**Kg**
	Total Weight in Metric Tonne					**0.50**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.79*		*0.450*	*1.41*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.79*		*0.957*	*3.01*	*Sqm*
		4		*0.737*	*0.957*	*2.82*	*Sqm*
		4	*0.79*		*0.600*	*1.89*	*Sqm*
		4		*1.174*	*0.600*	*2.82*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 3-3	*4*	*1.71*		*0.450*	*3.08*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.71*		*0.300*	*2.05*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*1.71*		*0.500*	*3.42*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Section 5-5	*4*	*2.02*		*0.450*	*3.63*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.02*		*0.957*	*7.73*	*Sqm*
		4		*0.737*	*0.957*	*2.82*	*Sqm*
		4	*2.02*		*0.500*	*4.04*	*Sqm*
		4		*1.174*	*0.500*	*2.35*	*Sqm*
	Section 6-6	*4*	*1.21*		*0.450*	*2.18*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.21*		*0.300*	*1.45*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*1.21*		*0.500*	*2.42*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.800*	*0.700*	*1.12*	*Sqm*
		2	*4.25*		*0.500*	*4.25*	*Sqm*
		2		*0.800*	*0.500*	*0.80*	*Sqm*
		2	*0.21*		*0.200*	*0.08*	*Sqm*
		2		*0.800*	*0.200*	*0.32*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.800*	*0.400*	*0.64*	*Sqm*
		2	*2.05*		*0.500*	*2.05*	*Sqm*
		2		*0.800*	*0.500*	*0.80*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.800*	*0.700*	*1.12*	*Sqm*
	Crest	*2*	*0.70*		*0.677*	*0.95*	*Sqm*
		2		*0.800*	*0.677*	*1.08*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.30*		*0.300*	*2.58*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.00*		*0.600*	*4.80*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.600*	*3.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**101.41**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.691*		*4.23*	*Sqm*
	TOTAL					**4.23**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.25*	*0.200*	*0.300*	**0.08**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.25*	*0.200*	*0.150*	**0.08**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*8.79*	*0.450*		*3.95*	*Sqm*
	On Abutment Top (Right Side)	*1*	*8.79*	*0.450*		*3.95*	*Sqm*
	TOTAL					**7.91**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		0.905		0.91	**Cum**
	Abutment						
	Section 1-1	2	*0.94*	*0.305*		*0.575*	*Cum*
	Section 2-2	2	*2.50*	*0.350*		*1.750*	*Cum*
	Section 3-3	2	*1.95*	*0.328*		*1.279*	*Cum*
	Section 5-5	2	*2.06*	*0.861*		*3.551*	*Cum*
	Section 6-6	2	*0.82*	*0.328*		*0.538*	*Cum*
	Toe wall	2	*4.30*	*0.150*	*0.600*	*1.290*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**10.11**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR DEOKULI MR.						
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH. 1.200 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.36*	*1.463*	*1.357*	*1.410*	*Cum*
	Section 2-2	*2*	*3.15*	*1.570*	*1.357*	*13.422*	*Cum*
	Section 3-3	*2*	*4.20*	*1.450*	*1.157*	*14.092*	*Cum*
	Section 5-5	*2*	*2.45*	*1.613*	*1.357*	*10.708*	*Cum*
	Section 6-6	*2*	*0.65*	*1.080*	*1.157*	*1.612*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.400*	*0.850*	*0.744*	*Cum*
	U/S Floor	*1*	*1.75*	*1.400*	*1.357*	*3.325*	*Cum*
	D/S Floor	*1*	*2.50*	*1.400*	*0.850*	*2.975*	*Cum*
		1	*1.75*	*1.400*	*0.650*	*1.593*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.400*	*0.850*	*0.744*	*Cum*
	Toe Wall D/S Portion	*1*	*5.42*	*0.750*	*0.900*	*3.659*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						55.63	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.400*	*0.150*	*0.11*	*Cum*
		1	*0.78*	*1.400*	*0.150*	*0.16*	*Cum*
		1	*3.63*	*1.400*	*0.150*	*0.76*	*Cum*
		1	*0.28*	*1.400*	*0.150*	*0.06*	*Cum*
		1	*3.14*	*1.400*	*0.150*	*0.66*	*Cum*
		1	*0.78*	*1.400*	*0.150*	*0.16*	*Cum*
		1	*0.54*	*1.400*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.36*	*1.463*	*0.150*	*0.16*	*Cum*
	Section 2-2	*2*	*3.15*	*1.570*	*0.150*	*1.48*	*Cum*
	Section 3-3	*2*	*4.20*	*1.450*	*0.150*	*1.83*	*Cum*
	Section 5-5	*2*	*2.45*	*1.613*	*0.150*	*1.18*	*Cum*
	Section 6-6	*2*	*0.65*	*1.080*	*0.150*	*0.21*	*Cum*
	Toe Wall D/S Portion	*1*	*5.42*	*0.750*	*0.300*	*1.22*	*Cum*
	Toe Wall D/S Portion	*1*	*5.12*	*0.450*	*0.600*	*1.38*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**10.31**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.28*	*0.450*	*0.450*	*0.11*	*Cum*
		2	*0.28*	*0.806*	*1.187*	*0.54*	*Cum*
		2	*0.28*	*1.313*	*0.500*	*0.37*	*Cum*
	Section 2-2	*2*	*3.15*	*0.820*	*0.500*	*2.58*	*Cum*
		2	*3.15*	*1.045*	*0.750*	*4.94*	*Cum*
		2	*3.15*	*1.420*	*1.300*	*11.63*	*Cum*
	Section 3-3	*2*	*3.89*	*0.820*	*0.500*	*3.19*	*Cum*
		2	*3.89*	*0.985*	*0.550*	*4.22*	*Cum*
		2	*3.89*	*1.300*	*1.500*	*15.17*	*Cum*
	Section 5-5	*2*	*2.40*	*0.450*	*0.450*	*0.97*	*Cum*
		2	*2.40*	*0.806*	*1.187*	*4.60*	*Cum*
		2	*2.40*	*1.313*	*0.500*	*3.15*	*Cum*
	Section 6-6	*2*	*1.30*	*0.450*	*0.450*	*0.52*	*Cum*
		2	*1.30*	*0.615*	*0.550*	*0.88*	*Cum*
		2	*1.30*	*0.930*	*0.500*	*1.20*	*Cum*
	Deduction for M 25 grade of concrete	*2*	*0.82*	*5.250*	*0.500*	*-4.31*	*Cum*
	Floor	*1*	*0.63*	*1.400*	*0.700*	*0.61*	*Cum*
		1	*4.25*	*1.400*	*0.500*	*2.98*	*Cum*
		1	*0.31*	*1.400*	*0.200*	*0.09*	*Cum*
		1	*0.20*	*1.400*	*0.400*	*0.11*	*Cum*
		1	*4.30*	*1.400*	*0.500*	*3.01*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.63*	*1.400*	*0.700*	*0.61*	*Cum*
	Crest	*1*	*0.72*	*1.400*	*0.797*	*0.81*	*Cum*
	TOTAL					**57.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.400*	*0.150*	*0.13*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.66*	*0.450*	*0.050*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.66*	*0.450*	*0.050*	*0.15*	*Cum*
	Slab Bridge	*1*	*2.20*	*5.250*	*0.328*	*3.79*	*Cum*
	Wearing coat	*1*	*2.20*	*4.250*	*0.070*	*0.65*	*Cum*
	Dirt wall	*2*	*0.40*	*5.250*	*0.300*	*1.26*	*Cum*
		2	*0.82*	*5.250*	*0.500*	*4.31*	*Cum*
	TOTAL					**10.43**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.66*		*1.578*	*130.1*	*Kg*
a2	*10*	*11*	*5.90*		*0.616*	*40.0*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.58*		*0.616*	*30.2*	*Kg*
a5	*10*	*8*	*5.85*		*0.616*	*28.9*	*Kg*
x1	*12*	*36*	*2.50*		*0.888*	*79.9*	*Kg*
x2	*16*	*36*	*1.27*		*1.578*	*71.9*	*Kg*
x3	*10*	*24*	*2.10*		*0.616*	*31.1*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**57.99**	**0.003**	**0.174**	**7850.0**	**1365.7**	**Kg**
	Total Reinforcement Steel (in kg)					*1784.4*	*Kg*
	Total Weight in Metric Tonne					**1.78**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.28*		*0.450*	*0.51*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.28*		*1.187*	*1.33*	*Sqm*
		4		*0.806*	*1.187*	*3.83*	*Sqm*
		4	*0.28*		*0.500*	*0.56*	*Sqm*
		4		*1.313*	*0.500*	*2.63*	*Sqm*
	Section 2-2	*4*	*3.15*		*0.500*	*6.30*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.15*		*0.750*	*9.45*	*Sqm*
		4		*1.045*	*0.750*	*3.14*	*Sqm*
		4	*3.15*		*1.300*	*16.38*	*Sqm*
		4		*1.420*	*1.300*	*7.38*	*Sqm*
	Section 3-3	*4*	*3.89*		*0.500*	*7.78*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.89*		*0.550*	*8.56*	*Sqm*
		4		*0.985*	*0.550*	*2.17*	*Sqm*
		4	*3.89*		*1.500*	*23.35*	*Sqm*
		4		*1.300*	*1.500*	*7.80*	*Sqm*
	Section 5-5	*4*	*2.40*		*0.450*	*4.32*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.40*		*1.187*	*11.40*	*Sqm*
		4		*0.806*	*1.187*	*3.83*	*Sqm*
		4	*2.40*		*0.500*	*4.80*	*Sqm*
		4		*1.313*	*0.500*	*2.63*	*Sqm*
	Section 6-6	*4*	*1.30*		*0.450*	*2.33*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.30*		*0.550*	*2.85*	*Sqm*
		4		*0.615*	*0.550*	*1.35*	*Sqm*
		4	*1.30*		*0.500*	*2.59*	*Sqm*
		4		*0.930*	*0.500*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.400*	*0.700*	*1.96*	*Sqm*
		2	*4.25*		*0.500*	*4.25*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.400*	*0.500*	*1.40*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*1.400*	*0.200*	*0.56*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.400*	*0.400*	*1.12*	*Sqm*
		2	*4.30*		*0.500*	*4.30*	*Sqm*
		2		*1.400*	*0.500*	*1.40*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.400*	*0.700*	*1.96*	*Sqm*
	Crest	*2*	*0.72*		*0.797*	*1.15*	*Sqm*
		2		*1.400*	*0.797*	*2.23*	*Sqm*
	Slab	*2*	*2.20*		*0.33*	*1.44*	*Sqm*
		2		*5.25*	*0.33*	*3.44*	*Sqm*
		1	*2.20*	*5.25*		*11.55*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.42*		*0.300*	*3.25*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.12*		*0.600*	*6.14*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**199.61**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.106*		*6.32*	*Sqm*
	TOTAL					**6.32**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.800*	*0.300*	**0.36**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.800*	*0.150*	**0.36**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.66*	*0.450*		*3.00*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.66*	*0.450*		*3.00*	*Sqm*
	TOTAL					**5.99**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.095		1.10	**Cum**
	Abutment						
	Section 1-1	2	*0.36*	*0.437*		*0.310*	*Cum*
	Section 2-2	2	*3.15*	*0.164*		*1.032*	*Cum*
	Section 3-3	2	*4.20*	*0.159*		*1.331*	*Cum*
	Section 5-5	2	*2.45*	*0.437*		*2.138*	*Cum*
	Section 6-6	2	*0.65*	*0.159*		*0.204*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.42*	*0.150*	*0.600*	*1.626*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**8.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.3.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.602*	*2.004*	*7.683*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*2.004*	*10.521*	*Cum*
	Section 3-3	*2*	*2.70*	*0.930*	*1.804*	*9.060*	*Cum*
	Section 5-5	*2*	*2.39*	*1.752*	*2.004*	*16.800*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*1.804*	*2.751*	*Cum*
	U/S Key Floor	*1*	*0.64*	*0.900*	*0.900*	*0.516*	*Cum*
	U/S Floor	*1*	*2.75*	*0.900*	*2.170*	*5.371*	*Cum*
	D/S Floor	*1*	*2.50*	*0.900*	*0.850*	*1.913*	*Cum*
		1	*3.30*	*0.900*	*0.650*	*1.931*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.900*	*1.250*	*0.816*	*Cum*
	Toe Wall D/S Portion	*1*	*4.25*	*0.750*	*0.900*	*2.869*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						61.58	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.900*	*0.150*	*0.07*	*Cum*
		1	*0.84*	*0.900*	*0.150*	*0.11*	*Cum*
		1	*0.51*	*0.900*	*0.150*	*0.07*	*Cum*
		1	*0.14*	*0.900*	*0.150*	*0.02*	*Cum*
		1	*3.89*	*0.900*	*0.150*	*0.53*	*Cum*
		1	*0.42*	*0.900*	*0.150*	*0.06*	*Cum*
		1	*1.44*	*0.900*	*0.150*	*0.19*	*Cum*
		1	*1.23*	*0.900*	*0.150*	*0.17*	*Cum*
		1	*0.54*	*0.900*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.602*	*0.150*	*0.58*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*0.150*	*0.79*	*Cum*
	Section 3-3	*2*	*2.70*	*0.930*	*0.150*	*0.75*	*Cum*
	Section 5-5	*2*	*2.39*	*1.752*	*0.150*	*1.26*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.25*	*0.750*	*0.300*	*0.96*	*Cum*
	Toe Wall D/S Portion	*1*	*3.95*	*0.450*	*0.600*	*1.07*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.72**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.876*	*1.420*	*2.60*	*Cum*
		2	*1.05*	*1.452*	*0.600*	*1.82*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.600*	*0.500*	*1.50*	*Cum*
		2	*2.50*	*0.900*	*0.600*	*2.70*	*Cum*
	Section 3-3	*2*	*2.46*	*0.450*	*0.450*	*1.00*	*Cum*
		2	*2.46*	*0.540*	*0.300*	*0.80*	*Cum*
		2	*2.46*	*0.780*	*0.500*	*1.92*	*Cum*
	Section 5-5	*2*	*2.35*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.35*	*0.876*	*1.420*	*5.84*	*Cum*
		2	*2.35*	*1.452*	*0.500*	*3.41*	*Cum*
	Section 6-6	*2*	*1.29*	*0.450*	*0.450*	*0.52*	*Cum*
		2	*1.29*	*0.540*	*0.300*	*0.42*	*Cum*
		2	*1.29*	*0.780*	*0.500*	*1.00*	*Cum*
	Floor	*1*	*0.64*	*0.900*	*0.750*	*0.43*	*Cum*
		1	*1.50*	*0.900*	*0.500*	*0.68*	*Cum*
		1	*0.10*	*0.900*	*0.550*	*0.05*	*Cum*
		1	*3.66*	*0.900*	*0.600*	*1.98*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.30*	*0.900*	*0.257*	*0.07*	*Cum*
		1	*0.20*	*0.900*	*0.400*	*0.07*	*Cum*
		1	*2.80*	*0.900*	*0.500*	*1.26*	*Cum*
		1	*0.73*	*0.900*	*1.100*	*0.72*	*Cum*
	Crest	*1*	*0.93*	*0.900*	*1.430*	*1.20*	*Cum*
	TOTAL					**32.37**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.900*	*0.150*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.42*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.42*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.56**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.37**	**0.00**	**0.097**	**7850.0**	**762.32**	**Kg**
	Total Weight in Metric Tonne					**0.76**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.450*	*1.88*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*1.420*	*5.95*	*Sqm*
		4		*0.876*	*1.420*	*4.98*	*Sqm*
		4	*1.05*		*0.600*	*2.51*	*Sqm*
		4		*1.452*	*0.600*	*3.48*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.900*	*0.600*	*2.16*	*Sqm*
	Section 3-3	*4*	*2.46*		*0.450*	*4.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.46*		*0.300*	*2.95*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*2.46*		*0.500*	*4.92*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Section 5-5	*4*	*2.35*		*0.450*	*4.23*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.35*		*1.420*	*13.34*	*Sqm*
		4		*0.876*	*1.420*	*4.98*	*Sqm*
		4	*2.35*		*0.500*	*4.70*	*Sqm*
		4		*1.452*	*0.500*	*2.90*	*Sqm*
	Section 6-6	*4*	*1.29*		*0.450*	*2.31*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.29*		*0.300*	*1.54*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*1.29*		*0.500*	*2.57*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Floor	*2*	*0.64*		*0.750*	*0.96*	*Sqm*
		2		*0.900*	*0.750*	*1.35*	*Sqm*
		2	*1.50*		*0.500*	*1.50*	*Sqm*
		2		*0.900*	*0.500*	*0.90*	*Sqm*
		2	*3.66*		*0.600*	*4.39*	*Sqm*
		2		*0.900*	*0.600*	*1.08*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*0.900*	*0.257*	*0.46*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.900*	*0.400*	*0.72*	*Sqm*
		2	*2.800*		*0.500*	*2.80*	*Sqm*
		2		*0.900*	*0.500*	*0.90*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.900*	*1.100*	*1.98*	*Sqm*
	Crest	*2*	*0.93*		*1.430*	*2.66*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.900*	*1.430*	*2.57*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.25*		*0.300*	*2.55*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.95*		*0.600*	*4.74*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**133.05**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.691*		*5.07*	*Sqm*
	TOTAL					**5.07**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.300*	*0.300*	**0.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.300*	*0.150*	**0.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.42*	*0.450*		*4.69*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.42*	*0.450*		*4.69*	*Sqm*
	TOTAL					**9.38**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.824		5.82	Cum
	Abutment						
	Section 1-1	2	*1.20*	*1.160*		*2.776*	*Cum*
	Section 2-2	2	*2.50*	*0.585*		*2.925*	*Cum*
	Section 3-3	2	*2.70*	*0.408*		*2.203*	*Cum*
	Section 5-5	2	*2.39*	*1.160*		*5.551*	*Cum*
	Section 6-6	2	*0.82*	*0.408*		*0.669*	*Cum*
	Toe wall	2	*4.25*	*0.150*	*0.600*	*1.275*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**21.49**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.3.600 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.602*	*2.004*	*7.683*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*2.004*	*10.521*	*Cum*
	Section 3-3	*2*	*2.70*	*0.930*	*1.804*	*9.060*	*Cum*
	Section 5-5	*2*	*2.39*	*1.752*	*2.004*	*16.800*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*1.804*	*2.751*	*Cum*
	U/S Key Floor	*1*	*0.64*	*0.900*	*0.900*	*0.516*	*Cum*
	U/S Floor	*1*	*2.75*	*0.900*	*2.170*	*5.371*	*Cum*
	D/S Floor	*1*	*2.50*	*0.900*	*0.850*	*1.913*	*Cum*
		1	*3.30*	*0.900*	*0.650*	*1.931*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.900*	*1.250*	*0.816*	*Cum*
	Toe Wall D/S Portion	*1*	*4.25*	*0.750*	*0.900*	*2.869*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						61.58	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.900*	*0.150*	*0.07*	*Cum*
		1	*0.84*	*0.900*	*0.150*	*0.11*	*Cum*
		1	*0.51*	*0.900*	*0.150*	*0.07*	*Cum*
		1	*0.14*	*0.900*	*0.150*	*0.02*	*Cum*
		1	*3.89*	*0.900*	*0.150*	*0.53*	*Cum*
		1	*0.42*	*0.900*	*0.150*	*0.06*	*Cum*
		1	*1.44*	*0.900*	*0.150*	*0.19*	*Cum*
		1	*1.23*	*0.900*	*0.150*	*0.17*	*Cum*
		1	*0.54*	*0.900*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.602*	*0.150*	*0.58*	*Cum*
	Section 2-2	*2*	*2.50*	*1.050*	*0.150*	*0.79*	*Cum*
	Section 3-3	*2*	*2.70*	*0.930*	*0.150*	*0.75*	*Cum*
	Section 5-5	*2*	*2.39*	*1.752*	*0.150*	*1.26*	*Cum*
	Section 6-6	*2*	*0.82*	*0.930*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.25*	*0.750*	*0.300*	*0.96*	*Cum*
	Toe Wall D/S Portion	*1*	*3.95*	*0.450*	*0.600*	*1.07*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.72**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.876*	*1.420*	*2.60*	*Cum*
		2	*1.05*	*1.452*	*0.600*	*1.82*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.600*	*0.500*	*1.50*	*Cum*
		2	*2.50*	*0.900*	*0.600*	*2.70*	*Cum*
	Section 3-3	*2*	*2.46*	*0.450*	*0.450*	*1.00*	*Cum*
		2	*2.46*	*0.540*	*0.300*	*0.80*	*Cum*
		2	*2.46*	*0.780*	*0.500*	*1.92*	*Cum*
	Section 5-5	*2*	*2.35*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.35*	*0.876*	*1.420*	*5.84*	*Cum*
		2	*2.35*	*1.452*	*0.500*	*3.41*	*Cum*
	Section 6-6	*2*	*1.29*	*0.450*	*0.450*	*0.52*	*Cum*
		2	*1.29*	*0.540*	*0.300*	*0.42*	*Cum*
		2	*1.29*	*0.780*	*0.500*	*1.00*	*Cum*
	Floor	*1*	*0.64*	*0.900*	*0.750*	*0.43*	*Cum*
		1	*1.50*	*0.900*	*0.500*	*0.68*	*Cum*
		1	*0.10*	*0.900*	*0.550*	*0.05*	*Cum*
		1	*3.66*	*0.900*	*0.600*	*1.98*	*Cum*
		1	*0.30*	*0.900*	*0.257*	*0.07*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*0.900*	*0.400*	*0.07*	*Cum*
		1	*2.80*	*0.900*	*0.500*	*1.26*	*Cum*
		1	*0.73*	*0.900*	*1.100*	*0.72*	*Cum*
	Crest	*1*	*0.93*	*0.900*	*1.430*	*1.20*	*Cum*
	TOTAL					**32.37**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.900*	*0.150*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.42*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.42*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.56**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.37**	**0.00**	**0.097**	**7850.0**	**762.32**	**Kg**
	Total Weight in Metric Tonne					**0.76**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.450*	*1.88*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*1.420*	*5.95*	*Sqm*
		4		*0.876*	*1.420*	*4.98*	*Sqm*
		4	*1.05*		*0.600*	*2.51*	*Sqm*
		4		*1.452*	*0.600*	*3.48*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.900*	*0.600*	*2.16*	*Sqm*
	Section 3-3	*4*	*2.46*		*0.450*	*4.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.46*		*0.300*	*2.95*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*2.46*		*0.500*	*4.92*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Section 5-5	*4*	*2.35*		*0.450*	*4.23*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.35*		*1.420*	*13.34*	*Sqm*
		4		*0.876*	*1.420*	*4.98*	*Sqm*
		4	*2.35*		*0.500*	*4.70*	*Sqm*
		4		*1.452*	*0.500*	*2.90*	*Sqm*
	Section 6-6	*4*	*1.29*		*0.450*	*2.31*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.29*		*0.300*	*1.54*	*Sqm*
		4		*0.540*	*0.300*	*0.65*	*Sqm*
		4	*1.29*		*0.500*	*2.57*	*Sqm*
		4		*0.780*	*0.500*	*1.56*	*Sqm*
	Floor	*2*	*0.64*		*0.750*	*0.96*	*Sqm*
		2		*0.900*	*0.750*	*1.35*	*Sqm*
		2	*1.50*		*0.500*	*1.50*	*Sqm*
		2		*0.900*	*0.500*	*0.90*	*Sqm*
		2	*3.66*		*0.600*	*4.39*	*Sqm*
		2		*0.900*	*0.600*	*1.08*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*0.900*	*0.257*	*0.46*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.900*	*0.400*	*0.72*	*Sqm*
		2	*2.800*		*0.500*	*2.80*	*Sqm*
		2		*0.900*	*0.500*	*0.90*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.900*	*1.100*	*1.98*	*Sqm*
	Crest	*2*	*0.93*		*1.430*	*2.66*	*Sqm*
		2		*0.900*	*1.430*	*2.57*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.25*		*0.300*	*2.55*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.95*		*0.600*	*4.74*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**133.05**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.691*		*5.07*	*Sqm*
	TOTAL					**5.07**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.300*	*0.300*	**0.14**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.300*	*0.150*	**0.14**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.42*	*0.450*		*4.69*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.42*	*0.450*		*4.69*	*Sqm*
	TOTAL					**9.38**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.941		4.94	Cum
	Abutment						
	Section 1-1	2	*1.20*	*1.100*		*2.632*	*Cum*
	Section 2-2	2	*2.50*	*0.585*		*2.925*	*Cum*
	Section 3-3	2	*2.70*	*0.408*		*2.203*	*Cum*
	Section 5-5	2	*2.39*	*1.100*		*5.264*	*Cum*
	Section 6-6	2	*0.82*	*0.408*		*0.669*	*Cum*
	Toe wall	2	*4.25*	*0.150*	*0.600*	*1.275*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**20.18**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR THAKUR BIGHA MR.						
	SHARDA TYPE FALL CUM CULVERT OF HEIGHT 0.610 METER AT CH.2.650 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.04*	*1.656*	*1.897*	*6.531*	*Cum*
	Section 2-2	*2*	*2.50*	*1.630*	*1.897*	*15.461*	*Cum*
	Section 3-3	*2*	*2.20*	*1.510*	*1.697*	*11.275*	*Cum*
	Section 5-5	*2*	*2.85*	*1.806*	*1.897*	*19.525*	*Cum*
	Section 6-6	*2*	*1.14*	*1.140*	*1.697*	*4.391*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.300*	*0.850*	*0.691*	*Cum*
	U/S Floor	*1*	*2.00*	*1.300*	*1.847*	*4.802*	*Cum*
	D/S Floor	*1*	*2.50*	*1.300*	*0.850*	*2.763*	*Cum*
		1	*2.50*	*1.300*	*0.650*	*2.113*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.300*	*0.850*	*0.691*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.750*	*0.900*	*3.949*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						73.99	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.300*	*0.150*	*0.11*	*Cum*
		1	*0.78*	*1.300*	*0.150*	*0.15*	*Cum*
		1	*4.12*	*1.300*	*0.150*	*0.80*	*Cum*
		1	*0.28*	*1.300*	*0.150*	*0.06*	*Cum*
		1	*0.90*	*1.300*	*0.150*	*0.17*	*Cum*
		1	*0.78*	*1.300*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*1.300*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.04*	*1.656*	*0.150*	*0.52*	*Cum*
	Section 2-2	*2*	*2.50*	*1.630*	*0.150*	*1.22*	*Cum*
	Section 3-3	*2*	*2.20*	*1.510*	*0.150*	*1.00*	*Cum*
	Section 5-5	*2*	*2.85*	*1.806*	*0.150*	*1.54*	*Cum*
	Section 6-6	*2*	*1.14*	*1.140*	*0.150*	*0.39*	*Cum*
	Toe Wall D/S Portion	*1*	*5.85*	*0.750*	*0.300*	*1.32*	*Cum*
	Toe Wall D/S Portion	*1*	*5.55*	*0.450*	*0.600*	*1.50*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**10.11**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.81*	*0.450*	*0.450*	*0.33*	*Cum*
		2	*0.81*	*0.903*	*1.510*	*2.22*	*Cum*
		2	*0.81*	*1.506*	*0.500*	*1.23*	*Cum*
	Section 2-2	*2*	*2.50*	*0.820*	*0.500*	*2.05*	*Cum*
		2	*2.50*	*1.075*	*0.850*	*4.57*	*Cum*
		2	*2.50*	*1.480*	*1.000*	*7.40*	*Cum*
	Section 3-3	*2*	*1.86*	*0.820*	*0.500*	*1.52*	*Cum*
		2	*1.86*	*1.015*	*0.650*	*2.45*	*Cum*
		2	*1.86*	*1.360*	*1.200*	*6.05*	*Cum*
	Section 5-5	*2*	*2.81*	*0.450*	*0.450*	*1.14*	*Cum*
		2	*2.81*	*0.903*	*1.460*	*7.40*	*Cum*
		2	*2.81*	*1.506*	*0.500*	*4.23*	*Cum*
	Section 6-6	*2*	*1.63*	*0.450*	*0.450*	*0.66*	*Cum*
		2	*1.63*	*0.645*	*0.650*	*1.37*	*Cum*
		2	*1.63*	*0.990*	*0.500*	*1.61*	*Cum*
	Deduction for M 25 grade of concrete	*2*	*0.82*	*5.500*	*0.500*	*-4.51*	*Cum*
	Floor	*1*	*0.63*	*1.300*	*0.700*	*0.57*	*Cum*
		1	*4.50*	*1.300*	*0.500*	*2.93*	*Cum*
		1	*0.55*	*1.300*	*0.200*	*0.14*	*Cum*
		1	*0.20*	*1.300*	*0.400*	*0.10*	*Cum*
		1	*2.30*	*1.300*	*0.500*	*1.50*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.63*	*1.300*	*0.700*	*0.57*	*Cum*
	Crest	*1*	*0.81*	*1.300*	*1.010*	*1.06*	*Cum*
	TOTAL					**46.57**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*1.300*	*0.150*	*0.13*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*7.21*	*0.450*	*0.050*	*0.16*	*Cum*
	On Abutment Top (Right Side)	*1*	*7.21*	*0.450*	*0.050*	*0.16*	*Cum*
	Slab Bridge	*1*	*2.10*	*5.500*	*0.328*	*3.79*	*Cum*
	Wearing coat	*1*	*2.10*	*4.500*	*0.070*	*0.66*	*Cum*
	Dirt wall	*2*	*0.40*	*5.500*	*0.300*	*1.32*	*Cum*
		2	*0.82*	*5.500*	*0.500*	*4.51*	*Cum*
	TOTAL					**10.73**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*2.56*		*1.578*	*125.2*	*Kg*
a2	*10*	*11*	*5.90*		*0.616*	*40.0*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.48*		*0.616*	*29.0*	*Kg*
a5	*10*	*8*	*5.85*		*0.616*	*28.9*	*Kg*
x1	*12*	*34*	*2.50*		*0.888*	*75.5*	*Kg*
x2	*16*	*34*	*1.37*		*1.578*	*73.2*	*Kg*
x3	*10*	*24*	*2.00*		*0.616*	*29.6*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**46.57**	**0.003**	**0.140**	**7850.0**	**1096.8**	**Kg**
	Total Reinforcement Steel (in kg)					*1505.0*	*Kg*
	Total Weight in Metric Tonne					**1.50**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.81*		*0.450*	*1.47*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.81*		*1.510*	*4.92*	*Sqm*
		4		*0.903*	*1.510*	*5.45*	*Sqm*
		4	*0.81*		*0.500*	*1.63*	*Sqm*
		4		*1.506*	*0.500*	*3.01*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*2.50*		*0.850*	*8.50*	*Sqm*
		4		*1.075*	*0.850*	*3.66*	*Sqm*
		4	*2.50*		*1.000*	*10.00*	*Sqm*
		4		*1.480*	*1.000*	*5.92*	*Sqm*
	Section 3-3	*4*	*1.86*		*0.500*	*3.71*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*1.86*		*0.650*	*4.82*	*Sqm*
		4		*1.015*	*0.650*	*2.64*	*Sqm*
		4	*1.86*		*1.200*	*8.90*	*Sqm*
		4		*1.360*	*1.200*	*6.53*	*Sqm*
	Section 5-5	*4*	*2.81*		*0.450*	*5.05*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.81*		*1.460*	*16.38*	*Sqm*
		4		*0.903*	*1.460*	*5.27*	*Sqm*
		4	*2.81*		*0.500*	*5.61*	*Sqm*
		4		*1.506*	*0.500*	*3.01*	*Sqm*
	Section 6-6	*4*	*1.63*		*0.450*	*2.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.63*		*0.650*	*4.24*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*1.63*		*0.500*	*3.26*	*Sqm*
		4		*0.990*	*0.500*	*1.98*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.300*	*0.700*	*1.82*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.300*	*0.500*	*1.30*	*Sqm*
		2	*0.55*		*0.200*	*0.22*	*Sqm*
		2		*1.300*	*0.200*	*0.52*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.300*	*0.400*	*1.04*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.300*	*0.500*	*1.30*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.300*	*0.700*	*1.82*	*Sqm*
	Crest	*2*	*0.81*		*1.010*	*1.64*	*Sqm*
		2		*1.300*	*1.010*	*2.63*	*Sqm*
	Slab	*2*	*2.10*		*0.33*	*1.38*	*Sqm*
		2		*5.50*	*0.33*	*3.61*	*Sqm*
		1	*2.10*	*5.50*		*11.55*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.85*		*0.300*	*3.51*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.55*		*0.600*	*6.66*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**187.05**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.323*		*9.29*	*Sqm*
	TOTAL					**9.29**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.700*	*0.300*	**0.42**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.700*	*0.150*	**0.42**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*7.21*	*0.450*		*3.24*	*Sqm*
	On Abutment Top (Right Side)	*1*	*7.21*	*0.450*		*3.24*	*Sqm*
	TOTAL					**6.49**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.799		1.80	**Cum**
	Abutment						
	Section 1-1	2	*1.04*	*0.864*		*1.796*	*Cum*
	Section 2-2	2	*2.50*	*0.832*		*4.160*	*Cum*
	Section 3-3	2	*2.20*	*0.641*		*2.820*	*Cum*
	Section 5-5	2	*2.85*	*0.864*		*4.924*	*Cum*
	Section 6-6	2	*1.14*	*0.641*		*1.455*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.85*	*0.150*	*0.600*	*1.755*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**19.07**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH. 4.500 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.09*	*1.688*	*1.702*	*6.275*	*Cum*
	Section 2-2	*2*	*3.00*	*1.140*	*1.702*	*11.642*	*Cum*
	Section 3-3	*2*	*1.70*	*1.020*	*1.502*	*5.209*	*Cum*
	Section 5-5	*2*	*2.31*	*1.838*	*1.702*	*14.421*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*1.502*	*2.926*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.900*	*0.850*	*0.478*	*Cum*
	U/S Floor	*1*	*2.50*	*0.900*	*1.764*	*3.969*	*Cum*
	D/S Floor	*1*	*2.50*	*0.900*	*0.850*	*1.913*	*Cum*
		1	*2.00*	*0.900*	*0.650*	*1.170*	*Cum*
	D/S Key Floor	*1*	*0.66*	*0.900*	*1.000*	*0.596*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.750*	*0.900*	*3.274*	*Cum*
	TOTAL					**51.87**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.900*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.900*	*0.150*	*0.11*	*Cum*
		1	*4.73*	*0.900*	*0.150*	*0.64*	*Cum*
		1	*0.28*	*0.900*	*0.150*	*0.04*	*Cum*
		1	*0.71*	*0.900*	*0.150*	*0.10*	*Cum*
		1	*0.95*	*0.900*	*0.150*	*0.13*	*Cum*
		1	*0.54*	*0.900*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.09*	*1.688*	*0.150*	*0.55*	*Cum*
	Section 2-2	*2*	*3.00*	*1.140*	*0.150*	*1.03*	*Cum*
	Section 3-3	*2*	*1.70*	*1.020*	*0.150*	*0.52*	*Cum*
	Section 5-5	*2*	*2.31*	*1.838*	*0.150*	*1.27*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*4.85*	*0.750*	*0.300*	*1.09*	*Cum*
	Toe Wall D/S Portion	*1*	*4.55*	*0.450*	*0.600*	*1.23*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.50*	*0.600*	*0.300*	*0.27*	*Cum*
	TOTAL					**7.40**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.94*	*0.450*	*0.450*	*0.38*	*Cum*
		2	*0.94*	*0.919*	*1.564*	*2.71*	*Cum*
		2	*0.94*	*1.538*	*0.500*	*1.45*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.645*	*0.650*	*2.52*	*Cum*
		2	*3.00*	*0.990*	*0.500*	*2.97*	*Cum*
	Section 3-3	*2*	*1.42*	*0.450*	*0.450*	*0.57*	*Cum*
		2	*1.42*	*0.585*	*0.450*	*0.74*	*Cum*
		2	*1.42*	*0.870*	*0.500*	*1.23*	*Cum*
	Section 5-5	*2*	*2.26*	*0.450*	*0.450*	*0.92*	*Cum*
		2	*2.26*	*0.919*	*1.564*	*6.50*	*Cum*
		2	*2.26*	*1.538*	*0.500*	*3.48*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*0.900*	*0.700*	*0.39*	*Cum*
		1	*5.50*	*0.900*	*0.500*	*2.48*	*Cum*
		1	*0.16*	*0.900*	*0.200*	*0.03*	*Cum*
		1	*0.20*	*0.900*	*0.400*	*0.07*	*Cum*
		1	*1.80*	*0.900*	*0.500*	*0.81*	*Cum*
		1	*0.66*	*0.900*	*0.850*	*0.51*	*Cum*
	Crest	*1*	*0.84*	*0.900*	*1.209*	*0.92*	*Cum*
	TOTAL					**32.39**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.65*	*0.900*	*0.150*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.81*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.81*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.53**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.39**	**0.00**	**0.097**	**7850.0**	**762.79**	**Kg**
	Total Weight in Metric Tonne					**0.76**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.94*		*0.450*	*1.70*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.94*		*1.564*	*5.89*	*Sqm*
		4		*0.919*	*1.564*	*5.75*	*Sqm*
		4	*0.94*		*0.500*	*1.88*	*Sqm*
		4		*1.538*	*0.500*	*3.08*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.650*	*7.80*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*3.00*		*0.500*	*6.00*	*Sqm*
		4		*0.990*	*0.500*	*1.98*	*Sqm*
	Section 3-3	*4*	*1.42*		*0.450*	*2.55*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.42*		*0.450*	*2.55*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.42*		*0.500*	*2.83*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.26*		*0.450*	*4.07*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.26*		*1.564*	*14.15*	*Sqm*
		4		*0.919*	*1.564*	*5.75*	*Sqm*
		4	*2.26*		*0.500*	*4.52*	*Sqm*
		4		*1.538*	*0.500*	*3.08*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.900*	*0.700*	*1.26*	*Sqm*
		2	*5.50*		*0.500*	*5.50*	*Sqm*
		2		*0.900*	*0.500*	*0.90*	*Sqm*
		2	*0.16*		*0.200*	*0.06*	*Sqm*
		2		*0.900*	*0.200*	*0.36*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.900*	*0.400*	*0.72*	*Sqm*
		2	*1.80*		*0.500*	*1.80*	*Sqm*
		2		*0.900*	*0.500*	*0.90*	*Sqm*
		2	*0.66*		*0.850*	*1.13*	*Sqm*
		2		*0.900*	*0.850*	*1.53*	*Sqm*
	Crest	*2*	*0.84*		*1.209*	*2.04*	*Sqm*
		2		*0.900*	*1.209*	*2.18*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.85*		*0.300*	*2.91*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.55*		*0.600*	*5.46*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.300*	*1.80*	*Sqm*
		4		*0.600*	*0.300*	*0.72*	*Sqm*
	TOTAL					**129.35**	**Sqm**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.961*		*5.88*	*Sqm*
	TOTAL					**5.88**	**Sqm**
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.81*	*0.450*		*4.41*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.81*	*0.450*		*4.41*	*Sqm*
	TOTAL					**8.82**	**Sqm**
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.934		3.93	**Cum**
	Abutment						
	Section 1-1	2	*1.09*	*0.722*		*1.577*	*Cum*
	Section 2-2	2	*3.00*	*0.674*		*4.044*	*Cum*
	Section 3-3	2	*1.70*	*0.555*		*1.887*	*Cum*
	Section 5-5	2	*2.31*	*0.722*		*3.328*	*Cum*
	Section 6-6	2	*0.96*	*0.555*		*1.060*	*Cum*
	Toe wall	2	*4.85*	*0.150*	*0.600*	*1.455*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**17.56**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.4.580KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*2.287*	*6.663*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*2.287*	*12.830*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*2.087*	*7.106*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*2.287*	*17.090*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*2.087*	*5.977*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*2.00*	*0.850*	*1.460*	*2.482*	*Cum*
	D/S Floor	*1*	*2.50*	*0.850*	*0.850*	*1.806*	*Cum*
		1	*2.50*	*0.850*	*0.650*	*1.381*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.900*	*3.179*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						60.77	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*4.07*	*0.850*	*0.150*	*0.52*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*0.850*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*0.150*	*0.44*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*0.150*	*0.84*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*0.150*	*0.51*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*0.150*	*1.12*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*0.150*	*0.43*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.300*	*1.06*	*Cum*
	Toe Wall D/S Portion	*1*	*4.41*	*0.450*	*0.600*	*1.19*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.819*	*1.230*	*1.67*	*Cum*
		2	*0.83*	*1.338*	*0.500*	*1.11*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.636*	*0.620*	*1.97*	*Cum*
		2	*2.50*	*0.972*	*0.500*	*2.43*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.576*	*0.420*	*0.93*	*Cum*
		2	*1.92*	*0.852*	*0.500*	*1.64*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.819*	*1.230*	*4.51*	*Cum*
		2	*2.24*	*1.338*	*0.500*	*3.00*	*Cum*
	Section 6-6	*2*	*1.35*	*0.450*	*0.450*	*0.55*	*Cum*
		2	*1.35*	*0.576*	*0.420*	*0.66*	*Cum*
		2	*1.35*	*0.852*	*0.500*	*1.15*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*4.50*	*0.850*	*0.500*	*1.91*	*Cum*
		1	*0.40*	*0.850*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*0.850*	*0.498*	*0.08*	*Cum*
		1	*2.30*	*0.850*	*0.500*	*0.98*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
	Crest	*1*	*0.74*	*0.850*	*0.890*	*0.56*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**26.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.51**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.99**	**0.00**	**0.081**	**7850.000**	**635.70**	**Kg**
	Total Weight in Metric Tonne					**0.64**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.49*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.230*	*4.07*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.620*	*6.20*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.46*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.420*	*3.23*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.92*		*0.500*	*3.85*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.230*	*11.02*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*2.24*		*0.500*	*4.48*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 6-6	*4*	*1.35*		*0.450*	*2.44*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*0.420*	*2.27*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.35*		*0.500*	*2.71*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*0.850*	*0.498*	*0.85*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.74*		*0.890*	*1.32*	*Sqm*
		2		*0.850*	*0.890*	*1.51*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.71*		*0.300*	*2.83*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.41*		*0.600*	*5.29*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**118.43**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.051*		*6.15*	*Sqm*
	TOTAL					**6.15**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	TOTAL					**8.59**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.662		1.66	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*0.943*		*1.845*	*Cum*
	Section 2-2	2	*2.50*	*0.679*		*3.394*	*Cum*
	Section 3-3	2	*1.70*	*0.519*		*1.763*	*Cum*
	Section 5-5	2	*2.28*	*0.943*		*4.300*	*Cum*
	Section 6-6	2	*1.43*	*0.519*		*1.482*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.71*	*0.150*	*0.600*	*1.413*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**16.13**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.5.830 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*2.180*	*6.351*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*2.180*	*12.230*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*1.980*	*6.741*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*2.180*	*16.290*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*1.980*	*5.670*	*Cum*
	U/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	U/S Floor	*1*	*2.00*	*0.850*	*1.460*	*2.482*	*Cum*
	D/S Floor	*1*	*2.50*	*0.850*	*0.850*	*1.806*	*Cum*
		1	*2.50*	*0.850*	*0.650*	*1.381*	*Cum*
	D/S Key Floor	*1*	*0.63*	*0.850*	*0.850*	*0.452*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.900*	*3.179*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						58.38	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*4.07*	*0.850*	*0.150*	*0.52*	*Cum*
		1	*0.28*	*0.850*	*0.150*	*0.04*	*Cum*
		1	*0.95*	*0.850*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*0.850*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.850*	*0.150*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.98*	*1.488*	*0.150*	*0.44*	*Cum*
	Section 2-2	*2*	*2.50*	*1.122*	*0.150*	*0.84*	*Cum*
	Section 3-3	*2*	*1.70*	*1.002*	*0.150*	*0.51*	*Cum*
	Section 5-5	*2*	*2.28*	*1.638*	*0.150*	*1.12*	*Cum*
	Section 6-6	*2*	*1.43*	*1.002*	*0.150*	*0.43*	*Cum*
	Toe Wall D/S Portion	*1*	*4.71*	*0.750*	*0.300*	*1.06*	*Cum*
	Toe Wall D/S Portion	*1*	*4.41*	*0.450*	*0.600*	*1.19*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.41**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.83*	*0.450*	*0.450*	*0.34*	*Cum*
		2	*0.83*	*0.819*	*1.230*	*1.67*	*Cum*
		2	*0.83*	*1.338*	*0.500*	*1.11*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.636*	*0.620*	*1.97*	*Cum*
		2	*2.50*	*0.972*	*0.500*	*2.43*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.576*	*0.420*	*0.93*	*Cum*
		2	*1.92*	*0.852*	*0.500*	*1.64*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.819*	*1.230*	*4.51*	*Cum*
		2	*2.24*	*1.338*	*0.500*	*3.00*	*Cum*
	Section 6-6	*2*	*1.35*	*0.450*	*0.450*	*0.55*	*Cum*
		2	*1.35*	*0.576*	*0.420*	*0.66*	*Cum*
		2	*1.35*	*0.852*	*0.500*	*1.15*	*Cum*
	Floor	*1*	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
		1	*4.50*	*0.850*	*0.500*	*1.91*	*Cum*
		1	*0.40*	*0.850*	*0.200*	*0.07*	*Cum*
		1	*0.20*	*0.850*	*0.498*	*0.08*	*Cum*
		1	*2.30*	*0.850*	*0.500*	*0.98*	*Cum*
		1	*0.63*	*0.850*	*0.700*	*0.37*	*Cum*
	Crest	*1*	*0.74*	*0.850*	*0.890*	*0.56*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**26.99**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.850*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.51**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.99**	**0.00**	**0.081**	**7850.000**	**635.70**	**Kg**
	Total Weight in Metric Tonne					**0.64**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.83*		*0.450*	*1.49*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.83*		*1.230*	*4.07*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*0.83*		*0.500*	*1.66*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.620*	*6.20*	*Sqm*
		4		*0.636*	*0.620*	*1.58*	*Sqm*
		4	*2.50*		*0.500*	*5.00*	*Sqm*
		4		*0.972*	*0.500*	*1.94*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.46*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.420*	*3.23*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.92*		*0.500*	*3.85*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.03*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.230*	*11.02*	*Sqm*
		4		*0.819*	*1.230*	*4.03*	*Sqm*
		4	*2.24*		*0.500*	*4.48*	*Sqm*
		4		*1.338*	*0.500*	*2.68*	*Sqm*
	Section 6-6	*4*	*1.35*		*0.450*	*2.44*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.35*		*0.420*	*2.27*	*Sqm*
		4		*0.576*	*0.420*	*0.97*	*Sqm*
		4	*1.35*		*0.500*	*2.71*	*Sqm*
		4		*0.852*	*0.500*	*1.70*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
		2	*4.50*		*0.500*	*4.50*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*0.850*	*0.200*	*0.34*	*Sqm*
		2	*0.20*		*0.498*	*0.20*	*Sqm*
		2		*0.850*	*0.498*	*0.85*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*0.850*	*0.500*	*0.85*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*0.850*	*0.700*	*1.19*	*Sqm*
	Crest	*2*	*0.74*		*0.890*	*1.32*	*Sqm*
		2		*0.850*	*0.890*	*1.51*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.71*		*0.300*	*2.83*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.41*		*0.600*	*5.29*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**118.43**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*2.051*		*6.15*	*Sqm*
	TOTAL					**6.15**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.250*	*0.300*	**0.11**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.250*	*0.150*	**0.11**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.54*	*0.450*		*4.29*	*Sqm*
	TOTAL					**8.59**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.392		1.39	**Cum**
	Abutment						
	Section 1-1	2	*0.98*	*0.650*		*1.273*	*Cum*
	Section 2-2	2	*2.50*	*0.620*		*3.100*	*Cum*
	Section 3-3	2	*1.70*	*0.500*		*1.699*	*Cum*
	Section 5-5	2	*2.28*	*0.650*		*2.965*	*Cum*
	Section 6-6	2	*1.43*	*0.500*		*1.429*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.71*	*0.150*	*0.600*	*1.413*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**13.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR DADHPA SUB DY.						
	SHARDA TYPE FALL OF HEIGHT 1.928 METER AT CH.0.350 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.56*	*2.351*	*2.557*	*18.762*	*Cum*
	Section 2-2	*2*	*4.25*	*1.074*	*2.557*	*23.343*	*Cum*
	Section 3-3	*2*	*4.45*	*1.074*	*2.357*	*22.530*	*Cum*
	Section 5-5	*2*	*2.36*	*2.501*	*2.557*	*30.178*	*Cum*
	Section 6-6	*2*	*1.04*	*1.074*	*2.357*	*5.245*	*Cum*
	U/S Key Floor	*1*	*0.68*	*2.000*	*1.050*	*1.418*	*Cum*
	U/S Floor	*1*	*4.00*	*2.000*	*2.878*	*23.024*	*Cum*
	D/S Floor	*1*	*4.25*	*2.000*	*1.350*	*11.475*	*Cum*
		1	*2.02*	*2.000*	*1.150*	*4.635*	*Cum*
	D/S Key Floor	*1*	*2.65*	*2.000*	*0.850*	*4.505*	*Cum*
	Toe Wall D/S Portion	*1*	*6.22*	*0.750*	*0.900*	*4.199*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
	TOTAL					**150.89**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*2.000*	*0.150*	*0.30*	*Cum*
		1	*0.90*	*2.000*	*0.150*	*0.27*	*Cum*
		1	*0.57*	*2.000*	*0.150*	*0.17*	*Cum*
		1	*6.22*	*2.000*	*0.150*	*1.87*	*Cum*
		1	*0.57*	*2.000*	*0.150*	*0.17*	*Cum*
		1	*1.39*	*2.000*	*0.150*	*0.42*	*Cum*
		1	*0.14*	*2.000*	*0.150*	*0.04*	*Cum*
		1	*1.15*	*2.000*	*0.150*	*0.34*	*Cum*
		1	*2.01*	*2.000*	*0.150*	*0.60*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.56*	*2.351*	*0.150*	*1.10*	*Cum*
	Section 2-2	*2*	*4.25*	*1.074*	*0.150*	*1.37*	*Cum*
	Section 3-3	*2*	*4.45*	*1.074*	*0.150*	*1.43*	*Cum*
	Section 5-5	*2*	*2.36*	*2.501*	*0.150*	*1.77*	*Cum*
	Section 6-6	*2*	*1.04*	*1.074*	*0.150*	*0.33*	*Cum*
	Toe Wall D/S Portion	*1*	*6.22*	*0.750*	*0.300*	*1.40*	*Cum*
	Toe Wall D/S Portion	*1*	*5.92*	*0.450*	*0.600*	*1.60*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**14.46**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.41*	*0.450*	*0.450*	*0.57*	*Cum*
		2	*1.41*	*1.251*	*2.668*	*9.41*	*Cum*
		2	*1.41*	*2.201*	*1.000*	*6.20*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.612*	*0.540*	*2.81*	*Cum*
		2	*4.25*	*0.924*	*1.000*	*7.85*	*Cum*
	Section 3-3	*2*	*4.14*	*0.450*	*0.450*	*1.68*	*Cum*
		2	*4.14*	*0.612*	*0.540*	*2.74*	*Cum*
		2	*4.14*	*0.924*	*0.800*	*6.12*	*Cum*
	Section 5-5	*2*	*2.32*	*0.450*	*0.450*	*0.94*	*Cum*
		2	*2.32*	*1.251*	*2.668*	*15.45*	*Cum*
		2	*2.32*	*2.201*	*0.600*	*6.11*	*Cum*
	Section 6-6	*2*	*1.50*	*0.450*	*0.450*	*0.61*	*Cum*
		2	*1.50*	*0.612*	*0.540*	*0.99*	*Cum*
		2	*1.50*	*0.924*	*0.700*	*1.94*	*Cum*
	Floor	*1*	*0.68*	*2.000*	*0.900*	*1.22*	*Cum*
		1	*1.96*	*2.000*	*0.600*	*2.35*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.40*	*2.000*	*0.800*	*0.64*	*Cum*
		1	*5.89*	*2.000*	*1.000*	*11.78*	*Cum*
		1	*0.41*	*2.000*	*0.400*	*0.33*	*Cum*
		1	*0.20*	*2.000*	*0.700*	*0.28*	*Cum*
		1	*1.82*	*2.000*	*0.500*	*1.82*	*Cum*
		1	*0.10*	*2.000*	*0.775*	*0.16*	*Cum*
		1	*2.65*	*2.000*	*0.700*	*3.71*	*Cum*
		1	*0.90*	*2.000*	*1.800*	*3.24*	*Cum*
	Crest	*1*	*1.27*	*2.000*	*2.273*	*5.77*	*Cum*
	TOTAL					**96.41**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*2.000*	*0.150*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*14.73*	*0.450*	*0.050*	*0.33*	*Cum*
	On Abutment Top (Right Side)	*1*	*14.73*	*0.450*	*0.050*	*0.33*	*Cum*
	TOTAL					**0.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**96.41**	**0.00**	**0.289**	**7850.0**	**2270.48**	**Kg**
	Total Weight in Metric Tonne					**2.27**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.41*		*0.450*	*2.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.41*		*2.668*	*15.04*	*Sqm*
		4		*1.251*	*2.668*	*13.35*	*Sqm*
		4	*1.41*		*1.000*	*5.64*	*Sqm*
		4		*2.201*	*1.000*	*8.80*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.540*	*9.18*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*4.25*		*1.000*	*17.00*	*Sqm*
		4		*0.924*	*1.000*	*3.70*	*Sqm*
	Section 3-3	*4*	*4.14*		*0.450*	*7.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.14*		*0.540*	*8.94*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*4.14*		*0.800*	*13.24*	*Sqm*
		4		*0.924*	*0.800*	*2.96*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.450*	*4.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.32*		*2.668*	*24.71*	*Sqm*
		4		*1.251*	*2.668*	*13.35*	*Sqm*
		4	*2.32*		*0.600*	*5.56*	*Sqm*
		4		*2.201*	*0.600*	*5.28*	*Sqm*
	Section 6-6	*4*	*1.50*		*0.450*	*2.70*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.50*		*0.540*	*3.24*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*1.50*		*0.700*	*4.19*	*Sqm*
		4		*0.924*	*0.700*	*2.59*	*Sqm*
	Floor	*2*	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*2.000*	*0.900*	*3.60*	*Sqm*
		2	*1.958*		*0.600*	*2.35*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*0.4*		*0.800*	*0.64*	*Sqm*
		2		*2.000*	*0.800*	*3.20*	*Sqm*
		2	*5.89*		*1.000*	*11.78*	*Sqm*
		2		*2.000*	*1.000*	*4.00*	*Sqm*
		2	*0.41*		*0.400*	*0.33*	*Sqm*
		2		*2.000*	*0.400*	*1.60*	*Sqm*
		2	*0.20*		*0.700*	*0.28*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*1.82*		*0.500*	*1.82*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*2.65*		*0.700*	*3.71*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*0.90*		*1.800*	*3.24*	*Sqm*
		2		*2.00*	*1.800*	*7.20*	*Sqm*
	Crest	*2*	*1.27*		*2.273*	*5.77*	*Sqm*
		2		*2.000*	*2.273*	*9.09*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.22*		*0.300*	*3.73*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.92*		*0.600*	*7.10*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**277.24**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	In D/S Portion On Slopes	*2*	*1.75*	*2.124*		*7.43*	*Sqm*
	TOTAL					**7.43**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.400*	*0.300*	**0.74**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.400*	*0.150*	**0.74**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*14.73*	*0.450*		*6.63*	*Sqm*
	On Abutment Top (Right Side)	*1*	*14.73*	*0.450*		*6.63*	*Sqm*
	TOTAL					**13.26**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		22.136		22.14	**Cum**
	Abutment						
	Section 1-1	2	*1.56*	*0.756*		*2.360*	*Cum*
	Section 2-2	2	*4.25*	*0.734*		*6.239*	*Cum*
	Section 3-3	2	*4.45*	*0.650*		*5.787*	*Cum*
	Section 5-5	2	*2.36*	*0.756*		*3.569*	*Cum*
	Section 6-6	2	*1.04*	*0.650*		*1.347*	*Cum*
	Toe wall	2	*6.22*	*0.150*	*0.600*	*1.866*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**43.62**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.830 METER AT CH.0.580 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.56*	*2.351*	*2.557*	*18.762*	*Cum*
	Section 2-2	*2*	*4.25*	*1.074*	*2.557*	*23.343*	*Cum*
	Section 3-3	*2*	*4.45*	*1.074*	*2.357*	*22.530*	*Cum*
	Section 5-5	*2*	*2.36*	*2.501*	*2.557*	*30.178*	*Cum*
	Section 6-6	*2*	*1.04*	*1.074*	*2.357*	*5.245*	*Cum*
	U/S Key Floor	*1*	*0.68*	*2.000*	*1.050*	*1.418*	*Cum*
	U/S Floor	*1*	*4.00*	*2.000*	*2.878*	*23.024*	*Cum*
	D/S Floor	*1*	*4.25*	*2.000*	*1.350*	*11.475*	*Cum*
		1	*2.02*	*2.000*	*1.150*	*4.635*	*Cum*
	D/S Key Floor	*1*	*2.65*	*2.000*	*0.850*	*4.505*	*Cum*
	Toe Wall D/S Portion	*1*	*6.22*	*0.750*	*0.900*	*4.199*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
	TOTAL					**150.89**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*2.000*	*0.150*	*0.30*	*Cum*
		1	*0.90*	*2.000*	*0.150*	*0.27*	*Cum*
		1	*0.57*	*2.000*	*0.150*	*0.17*	*Cum*
		1	*6.22*	*2.000*	*0.150*	*1.87*	*Cum*
		1	*0.57*	*2.000*	*0.150*	*0.17*	*Cum*
		1	*1.39*	*2.000*	*0.150*	*0.42*	*Cum*
		1	*0.14*	*2.000*	*0.150*	*0.04*	*Cum*
		1	*1.15*	*2.000*	*0.150*	*0.34*	*Cum*
		1	*2.01*	*2.000*	*0.150*	*0.60*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.56*	*2.351*	*0.150*	*1.10*	*Cum*
	Section 2-2	*2*	*4.25*	*1.074*	*0.150*	*1.37*	*Cum*
	Section 3-3	*2*	*4.45*	*1.074*	*0.150*	*1.43*	*Cum*
	Section 5-5	*2*	*2.36*	*2.501*	*0.150*	*1.77*	*Cum*
	Section 6-6	*2*	*1.04*	*1.074*	*0.150*	*0.33*	*Cum*
	Toe Wall D/S Portion	*1*	*6.22*	*0.750*	*0.300*	*1.40*	*Cum*
	Toe Wall D/S Portion	*1*	*5.92*	*0.450*	*0.600*	*1.60*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**14.46**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.41*	*0.450*	*0.450*	*0.57*	*Cum*
		2	*1.41*	*1.251*	*2.668*	*9.41*	*Cum*
		2	*1.41*	*2.201*	*1.000*	*6.20*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.612*	*0.540*	*2.81*	*Cum*
		2	*4.25*	*0.924*	*1.000*	*7.85*	*Cum*
	Section 3-3	*2*	*4.14*	*0.450*	*0.450*	*1.68*	*Cum*
		2	*4.14*	*0.612*	*0.540*	*2.74*	*Cum*
		2	*4.14*	*0.924*	*0.800*	*6.12*	*Cum*
	Section 5-5	*2*	*2.32*	*0.450*	*0.450*	*0.94*	*Cum*
		2	*2.32*	*1.251*	*2.668*	*15.45*	*Cum*
		2	*2.32*	*2.201*	*0.600*	*6.11*	*Cum*
	Section 6-6	*2*	*1.50*	*0.450*	*0.450*	*0.61*	*Cum*
		2	*1.50*	*0.612*	*0.540*	*0.99*	*Cum*
		2	*1.50*	*0.924*	*0.700*	*1.94*	*Cum*
	Floor	*1*	*0.68*	*2.000*	*0.900*	*1.22*	*Cum*
		1	*1.96*	*2.000*	*0.600*	*2.35*	*Cum*
		1	*0.40*	*2.000*	*0.800*	*0.64*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*5.89*	*2.000*	*1.000*	*11.78*	*Cum*
		1	*0.41*	*2.000*	*0.400*	*0.33*	*Cum*
		1	*0.20*	*2.000*	*0.700*	*0.28*	*Cum*
		1	*1.82*	*2.000*	*0.500*	*1.82*	*Cum*
		1	*0.10*	*2.000*	*0.775*	*0.16*	*Cum*
		1	*2.65*	*2.000*	*0.700*	*3.71*	*Cum*
		1	*0.90*	*2.000*	*1.800*	*3.24*	*Cum*
	Crest	*1*	*1.27*	*2.000*	*2.273*	*5.77*	*Cum*
	TOTAL					**96.41**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*2.000*	*0.150*	*0.27*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*14.73*	*0.450*	*0.050*	*0.33*	*Cum*
	On Abutment Top (Right Side)	*1*	*14.73*	*0.450*	*0.050*	*0.33*	*Cum*
	TOTAL					**0.93**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**96.41**	**0.00**	**0.289**	**7850.0**	**2270.48**	**Kg**
	Total Weight in Metric Tonne					**2.27**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.41*		*0.450*	*2.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.41*		*2.668*	*15.04*	*Sqm*
		4		*1.251*	*2.668*	*13.35*	*Sqm*
		4	*1.41*		*1.000*	*5.64*	*Sqm*
		4		*2.201*	*1.000*	*8.80*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.540*	*9.18*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*4.25*		*1.000*	*17.00*	*Sqm*
		4		*0.924*	*1.000*	*3.70*	*Sqm*
	Section 3-3	*4*	*4.14*		*0.450*	*7.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.14*		*0.540*	*8.94*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*4.14*		*0.800*	*13.24*	*Sqm*
		4		*0.924*	*0.800*	*2.96*	*Sqm*
	Section 5-5	*4*	*2.32*		*0.450*	*4.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.32*		*2.668*	*24.71*	*Sqm*
		4		*1.251*	*2.668*	*13.35*	*Sqm*
		4	*2.32*		*0.600*	*5.56*	*Sqm*
		4		*2.201*	*0.600*	*5.28*	*Sqm*
	Section 6-6	*4*	*1.50*		*0.450*	*2.70*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.50*		*0.540*	*3.24*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*1.50*		*0.700*	*4.19*	*Sqm*
		4		*0.924*	*0.700*	*2.59*	*Sqm*
	Floor	*2*	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*2.000*	*0.900*	*3.60*	*Sqm*
		2	*1.958*		*0.600*	*2.35*	*Sqm*
		2		*2.000*	*0.600*	*2.40*	*Sqm*
		2	*0.4*		*0.800*	*0.64*	*Sqm*
		2		*2.000*	*0.800*	*3.20*	*Sqm*
		2	*5.89*		*1.000*	*11.78*	*Sqm*
		2		*2.000*	*1.000*	*4.00*	*Sqm*
		2	*0.41*		*0.400*	*0.33*	*Sqm*
		2		*2.000*	*0.400*	*1.60*	*Sqm*
		2	*0.20*		*0.700*	*0.28*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.82*		*0.500*	*1.82*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*2.65*		*0.700*	*3.71*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*0.90*		*1.800*	*3.24*	*Sqm*
		2		*2.00*	*1.800*	*7.20*	*Sqm*
	Crest	*2*	*1.27*		*2.273*	*5.77*	*Sqm*
		2		*2.000*	*2.273*	*9.09*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.22*		*0.300*	*3.73*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.92*		*0.600*	*7.10*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**277.24**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.124*		*7.43*	*Sqm*
	TOTAL					**7.43**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.400*	*0.300*	**0.74**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.400*	*0.150*	**0.74**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*14.73*	*0.450*		*6.63*	*Sqm*
	On Abutment Top (Right Side)	*1*	*14.73*	*0.450*		*6.63*	*Sqm*
	TOTAL					**13.26**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		22.136		22.14	**Cum**
	Abutment						
	Section 1-1	2	*1.56*	*0.756*		*2.360*	*Cum*
	Section 2-2	2	*4.25*	*0.734*		*6.239*	*Cum*
	Section 3-3	2	*4.45*	*0.650*		*5.787*	*Cum*
	Section 5-5	2	*2.36*	*0.756*		*3.569*	*Cum*
	Section 6-6	2	*1.04*	*0.650*		*1.347*	*Cum*
	Toe wall	2	*6.22*	*0.150*	*0.600*	*1.866*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**43.62**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH. 1.150 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.93*	*1.377*	*1.243*	*3.172*	*Cum*
	Section 2-2	*2*	*3.25*	*1.594*	*1.243*	*12.879*	*Cum*
	Section 3-3	*2*	*2.70*	*1.594*	*1.043*	*8.978*	*Cum*
	Section 5-5	*2*	*2.56*	*1.527*	*1.243*	*9.720*	*Cum*
	Section 6-6	*2*	*1.04*	*1.074*	*1.043*	*2.321*	*Cum*
	U/S Key Floor	*1*	*0.63*	*2.000*	*0.700*	*0.875*	*Cum*
	U/S Floor	*1*	*1.50*	*2.000*	*1.155*	*3.465*	*Cum*
	D/S Floor	*1*	*3.00*	*2.000*	*0.650*	*3.900*	*Cum*
		1	*3.02*	*2.000*	*0.850*	*5.126*	*Cum*
	D/S Key Floor	*1*	*0.63*	*2.000*	*0.850*	*1.063*	*Cum*
	Toe wall D/S Portion	*1*	*6.22*	*0.750*	*0.900*	*4.199*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.75*	*0.600*	*0.750*	*0.788*	*Cum*
	TOTAL					**56.48**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
		1	*0.78*	*2.000*	*0.150*	*0.23*	*Cum*
		1	*2.88*	*2.000*	*0.150*	*0.86*	*Cum*
		1	*0.28*	*2.000*	*0.150*	*0.08*	*Cum*
		1	*1.64*	*2.000*	*0.150*	*0.49*	*Cum*
		1	*0.78*	*2.000*	*0.150*	*0.23*	*Cum*
		1	*0.54*	*2.000*	*0.150*	*0.16*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.93*	*1.377*	*0.150*	*0.38*	*Cum*
	Section 2-2	*2*	*3.25*	*1.594*	*0.150*	*1.55*	*Cum*
	Section 3-3	*2*	*2.70*	*1.594*	*0.150*	*1.29*	*Cum*
	Section 5-5	*2*	*2.56*	*1.527*	*0.150*	*1.17*	*Cum*
	Section 6-6	*2*	*1.04*	*1.074*	*0.150*	*0.33*	*Cum*
	Toe Wall D/S Portion	*1*	*6.22*	*0.750*	*0.300*	*1.40*	*Cum*
	Toe Wall D/S Portion	*1*	*5.92*	*0.450*	*0.600*	*1.60*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**10.91**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.78*	*0.450*	*0.450*	*0.31*	*Cum*
		2	*0.78*	*0.764*	*1.045*	*1.24*	*Cum*
		2	*0.78*	*1.227*	*0.500*	*0.95*	*Cum*
	Section 2-2	*2*	*3.25*	*0.820*	*0.500*	*2.67*	*Cum*
		2	*3.25*	*0.982*	*0.540*	*3.45*	*Cum*
		2	*3.25*	*1.294*	*0.500*	*4.21*	*Cum*
	Section 3-3	*2*	*2.39*	*0.820*	*0.500*	*1.96*	*Cum*
		2	*2.39*	*0.982*	*0.540*	*2.53*	*Cum*
		2	*2.39*	*1.294*	*0.500*	*3.09*	*Cum*
	Section 5-5	*2*	*2.52*	*0.450*	*0.450*	*1.02*	*Cum*
		2	*2.52*	*0.764*	*1.045*	*4.02*	*Cum*
		2	*2.52*	*1.227*	*0.500*	*3.09*	*Cum*
	Section 6-6	*2*	*1.50*	*0.450*	*0.450*	*0.61*	*Cum*
		2	*1.50*	*0.612*	*0.540*	*0.99*	*Cum*
		2	*1.50*	*0.924*	*0.500*	*1.38*	*Cum*
	Floor	*1*	*0.63*	*2.000*	*0.700*	*0.88*	*Cum*
		1	*3.50*	*2.000*	*0.500*	*3.50*	*Cum*
		1	*0.31*	*2.000*	*0.200*	*0.12*	*Cum*
		1	*0.20*	*2.000*	*0.400*	*0.16*	*Cum*
		1	*2.82*	*2.000*	*0.500*	*2.82*	*Cum*
		1	*0.63*	*2.000*	*0.700*	*0.88*	*Cum*
	Crest	*1*	*0.70*	*2.000*	*0.665*	*0.93*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**40.79**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*2.000*	*0.150*	*0.18*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.90*	*0.450*	*0.050*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.90*	*0.450*	*0.050*	*0.22*	*Cum*
	TOTAL					**0.63**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Taking Skin reinforcement @0.3% of M-20	**40.79**	**0.00**	**0.122**	**7850.0**	**960.61**	**Kg**
	Total Weight in Metric Tonne					**0.96**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.78*		*0.450*	*1.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.78*		*1.045*	*3.24*	*Sqm*
		4		*0.764*	*1.045*	*3.19*	*Sqm*
		4	*0.78*		*0.500*	*1.55*	*Sqm*
		4		*1.227*	*0.500*	*2.45*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.500*	*6.50*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.25*		*0.540*	*7.02*	*Sqm*
		4		*0.982*	*0.540*	*2.12*	*Sqm*
		4	*3.25*		*0.500*	*6.50*	*Sqm*
		4		*1.294*	*0.500*	*2.59*	*Sqm*
	Section 3-3	*4*	*2.39*		*0.500*	*4.78*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*2.39*		*0.540*	*5.16*	*Sqm*
		4		*0.982*	*0.540*	*2.12*	*Sqm*
		4	*2.39*		*0.500*	*4.78*	*Sqm*
		4		*1.294*	*0.500*	*2.59*	*Sqm*
	Section 5-5	*4*	*2.52*		*0.450*	*4.53*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.52*		*1.045*	*10.52*	*Sqm*
		4		*0.764*	*1.045*	*3.19*	*Sqm*
		4	*2.52*		*0.500*	*5.03*	*Sqm*
		4		*1.227*	*0.500*	*2.45*	*Sqm*
	Section 6-6	*4*	*1.50*		*0.450*	*2.70*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.50*		*0.540*	*3.24*	*Sqm*
		4		*0.612*	*0.540*	*1.32*	*Sqm*
		4	*1.50*		*0.500*	*3.00*	*Sqm*
		4		*0.924*	*0.500*	*1.85*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
		2	*3.50*		*0.500*	*3.50*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*2.000*	*0.200*	*0.80*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*2.000*	*0.400*	*1.60*	*Sqm*
		2	*2.82*		*0.500*	*2.82*	*Sqm*
		2		*2.000*	*0.500*	*2.00*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*2.000*	*0.700*	*2.80*	*Sqm*
	Crest	*2*	*0.70*		*0.665*	*0.93*	*Sqm*
		2		*2.000*	*0.665*	*2.66*	*Sqm*
	TOTAL					**123.47**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.124*		*7.43*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**7.43**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*1.400*	*0.300*	**0.74**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*1.400*	*0.150*	**0.74**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.90*	*0.450*		*4.46*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.90*	*0.450*		*4.46*	*Sqm*
	TOTAL					**8.91**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	4.00			**4.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Floor	1		0.666		0.67	**Cum**
	Abutment						
	Section 1-1	2	0.93	*0.358*		*0.663*	*Cum*
	Section 2-2	2	3.25	*0.358*		*2.327*	*Cum*
	Section 3-3	2	2.70	*0.357*		*1.928*	*Cum*
	Section 5-5	2	2.56	*0.358*		*1.833*	*Cum*
	Section 6-6	2	1.04	*0.357*		*0.740*	*Cum*
	Toe wall	2	*6.22*	*0.150*	*0.600*	*1.866*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**10.34**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.1.465 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL	1		58.36		**58.36**	**Cum**
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.15*	*1.47*	*0.15*	*0.95*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.56*	*1.62*	*0.15*	*1.25*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.31**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.93*	*0.45*	*0.45*	*0.78*	*Cum*
		2	*1.93*	*0.83*	*1.36*	*4.34*	*Cum*
		2	*1.93*	*1.42*	*0.50*	*2.73*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*0.96*	*0.45*	*0.45*	*0.39*	*Cum*
		2	*0.96*	*0.62*	*0.55*	*0.65*	*Cum*
		2	*0.96*	*0.93*	*0.50*	*0.89*	*Cum*
	Section 5-5	*2*	*2.52*	*0.45*	*0.45*	*1.02*	*Cum*
		2	*2.52*	*0.83*	*1.36*	*5.67*	*Cum*
		2	*2.52*	*1.42*	*0.50*	*3.57*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.72*	*1.46*	*0.80*	*0.84*	*Cum*
	TOTAL					**35.35**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.46*	*0.15*	*0.13*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.98*	*0.45*	*0.05*	*0.22*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.98*	*0.45*	*0.05*	*0.22*	*Cum*
	TOTAL					**0.58**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	35.35	0.30%	0.11	7850	832.40	Kg
	Total Weight in Metric Tonne					**0.83**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.93*		*0.45*	*3.47*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.93*		*1.36*	*10.47*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*1.93*		*0.50*	*3.85*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*0.96*		*0.45*	*1.73*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*0.96*		*0.55*	*2.11*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*0.96*		*0.50*	*1.92*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.52*		*0.45*	*4.53*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.52*		*1.36*	*13.70*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.52*		*0.50*	*5.04*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.7245*		*0.796*	*1.15*	*Sqm*
		2		*1.46*	*0.796*	*2.32*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**137.88**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.98*	*0.45*		*4.49*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.98*	*0.45*		*4.49*	*Sqm*
	TOTAL					**8.98**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		5.05		5.05	Cum
	TOTAL					**5.05**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH.2.225 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.780*	*3.544*	*15.436*	*Cum*
	Section 2-2	*2*	*3.00*	*1.140*	*3.544*	*24.241*	*Cum*
	Section 3-3	*2*	*2.20*	*1.020*	*3.344*	*15.008*	*Cum*
	Section 5-5	*2*	*2.29*	*1.930*	*3.544*	*31.299*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*3.344*	*6.515*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.500*	*0.850*	*0.797*	*Cum*
	U/S Floor	*1*	*2.50*	*1.500*	*2.017*	*7.564*	*Cum*
	D/S Floor	*1*	*3.00*	*1.500*	*1.050*	*4.725*	*Cum*
		1	*2.50*	*1.500*	*0.850*	*3.188*	*Cum*
	D/S Key Floor	*1*	*0.70*	*1.500*	*0.750*	*0.788*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.900*	*3.679*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
						114.59	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
		1	*0.78*	*1.500*	*0.150*	*0.18*	*Cum*
		1	*0.26*	*1.500*	*0.150*	*0.06*	*Cum*
		1	*0.14*	*1.500*	*0.150*	*0.03*	*Cum*
		1	*4.42*	*1.500*	*0.150*	*0.99*	*Cum*
		1	*0.42*	*1.500*	*0.150*	*0.10*	*Cum*
		1	*0.99*	*1.500*	*0.150*	*0.22*	*Cum*
		1	*1.12*	*1.500*	*0.150*	*0.25*	*Cum*
		1	*0.54*	*1.500*	*0.150*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.780*	*0.150*	*0.65*	*Cum*
	Section 2-2	*2*	*3.00*	*1.140*	*0.150*	*1.03*	*Cum*
	Section 3-3	*2*	*2.20*	*1.020*	*0.150*	*0.67*	*Cum*
	Section 5-5	*2*	*2.29*	*1.930*	*0.150*	*1.32*	*Cum*
	Section 6-6	*2*	*0.96*	*1.020*	*0.150*	*0.29*	*Cum*
	Toe Wall D/S Portion	*1*	*5.45*	*0.750*	*0.300*	*1.23*	*Cum*
	Toe Wall D/S Portion	*1*	*5.15*	*0.450*	*0.600*	*1.39*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**9.47**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.00*	*0.450*	*0.450*	*0.40*	*Cum*
		2	*1.00*	*0.965*	*1.717*	*3.31*	*Cum*
		2	*1.00*	*1.630*	*0.600*	*1.95*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.645*	*0.650*	*2.52*	*Cum*
		2	*3.00*	*0.990*	*0.600*	*3.56*	*Cum*
	Section 3-3	*2*	*1.92*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.92*	*0.585*	*0.450*	*1.01*	*Cum*
		2	*1.92*	*0.870*	*0.500*	*1.67*	*Cum*
	Section 5-5	*2*	*2.24*	*0.450*	*0.450*	*0.91*	*Cum*
		2	*2.24*	*0.965*	*1.717*	*7.44*	*Cum*
		2	*2.24*	*1.630*	*0.500*	*3.66*	*Cum*
	Section 6-6	*2*	*1.39*	*0.450*	*0.450*	*0.56*	*Cum*
		2	*1.39*	*0.585*	*0.450*	*0.73*	*Cum*
		2	*1.39*	*0.870*	*0.500*	*1.21*	*Cum*
	Floor	*1*	*0.63*	*1.500*	*0.700*	*0.66*	*Cum*
		1	*5.50*	*1.500*	*0.500*	*4.13*	*Cum*
		1	*4.24*	*1.500*	*0.100*	*0.64*	*Cum*
		1	*0.26*	*1.500*	*0.300*	*0.12*	*Cum*
		1	*0.20*	*1.500*	*0.750*	*0.23*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*2.30*	*1.500*	*0.500*	*1.73*	*Cum*
		1	*0.70*	*1.500*	*1.000*	*1.05*	*Cum*
	Crest	*1*	*0.97*	*1.500*	*1.357*	*1.97*	*Cum*
	TOTAL					**41.42**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.500*	*0.150*	*0.17*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.45*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.45*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.64**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**41.42**	**0.00**	**0.124**	**7850.0**	**975.44**	**Kg**
	Total Weight in Metric Tonne					**0.98**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.00*		*0.450*	*1.80*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.00*		*1.717*	*6.86*	*Sqm*
		4		*0.965*	*1.717*	*6.63*	*Sqm*
		4	*1.00*		*0.600*	*2.40*	*Sqm*
		4		*1.630*	*0.600*	*3.91*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.650*	*7.80*	*Sqm*
		4		*0.645*	*0.650*	*1.68*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*0.990*	*0.600*	*2.38*	*Sqm*
	Section 3-3	*4*	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.92*		*0.450*	*3.45*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.92*		*0.500*	*3.83*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Section 5-5	*4*	*2.24*		*0.450*	*4.04*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.24*		*1.717*	*15.41*	*Sqm*
		4		*0.965*	*1.717*	*6.63*	*Sqm*
		4	*2.24*		*0.500*	*4.49*	*Sqm*
		4		*1.630*	*0.500*	*3.26*	*Sqm*
	Section 6-6	*4*	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.39*		*0.450*	*2.50*	*Sqm*
		4		*0.585*	*0.450*	*1.05*	*Sqm*
		4	*1.39*		*0.500*	*2.78*	*Sqm*
		4		*0.870*	*0.500*	*1.74*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.500*	*0.700*	*2.10*	*Sqm*
		2	*5.50*		*0.500*	*5.50*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.26*		*0.300*	*0.15*	*Sqm*
		2		*1.500*	*0.300*	*0.90*	*Sqm*
		2	*0.20*		*0.750*	*0.30*	*Sqm*
		2		*1.500*	*0.750*	*2.25*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.500*	*0.500*	*1.50*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*1.500*	*1.000*	*3.00*	*Sqm*
	Crest	*2*	*0.97*		*1.357*	*2.63*	*Sqm*
		2		*1.500*	*1.357*	*4.07*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.45*		*0.300*	*3.27*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.15*		*0.600*	*6.18*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**152.51**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.962*		*5.89*	*Sqm*
	TOTAL					**5.89**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.900*	*0.300*	**0.41**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.900*	*0.150*	**0.41**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.45*	*0.450*		*4.70*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.45*	*0.450*		*4.70*	*Sqm*
	TOTAL					**9.41**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	*1*		*4.956*		*4.96*	*Cum*
	Abutment						
	Section 1-1	*2*	*1.22*	*2.155*		*5.273*	*Cum*
	Section 2-2	*2*	*3.00*	*0.757*		*4.542*	*Cum*
	Section 3-3	*2*	*2.20*	*0.556*		*2.446*	*Cum*
	Section 5-5	*2*	*2.29*	*2.134*		*9.765*	*Cum*
	Section 6-6	*2*	*0.96*	*0.556*		*1.062*	*Cum*
	D/S protection	*2*					
	Toe wall	*2*	*5.45*	*0.150*	*0.600*	*1.635*	*Cum*
		2	*1.50*	*0.150*	*0.600*	*0.270*	*Cum*
	TOTAL					**29.95**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.3.230 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.43*	*1.566*	*1.463*	*1.963*	*Cum*
	Section 2-2	*2*	*3.86*	*1.570*	*1.463*	*17.714*	*Cum*
	Section 3-3	*2*	*6.65*	*1.450*	*1.263*	*24.357*	*Cum*
	Section 5-5	*2*	*2.54*	*1.716*	*1.463*	*12.748*	*Cum*
	Section 6-6	*2*	*0.68*	*1.080*	*1.263*	*1.841*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.700*	*0.850*	*0.903*	*Cum*
	U/S Floor	*1*	*2.00*	*1.700*	*1.357*	*4.614*	*Cum*
	D/S Floor	*1*	*3.00*	*1.700*	*0.850*	*4.335*	*Cum*
		1	*2.00*	*1.700*	*0.650*	*2.210*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.700*	*0.850*	*0.903*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.750*	*0.900*	*3.854*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*0.600*	*0.750*	*1.800*	*Cum*
						77.24	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.700*	*0.150*	*0.14*	*Cum*
		1	*0.78*	*1.700*	*0.150*	*0.20*	*Cum*
		1	*4.57*	*1.700*	*0.150*	*1.16*	*Cum*
		1	*0.28*	*1.700*	*0.150*	*0.07*	*Cum*
		1	*5.60*	*1.700*	*0.150*	*1.43*	*Cum*
		1	*0.78*	*1.700*	*0.150*	*0.20*	*Cum*
		1	*0.54*	*1.700*	*0.150*	*0.14*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.43*	*1.566*	*0.150*	*0.20*	*Cum*
	Section 2-2	*2*	*3.86*	*1.570*	*0.150*	*1.82*	*Cum*
	Section 3-3	*2*	*6.65*	*1.450*	*0.150*	*2.89*	*Cum*
	Section 5-5	*2*	*2.54*	*1.716*	*0.150*	*1.31*	*Cum*
	Section 6-6	*2*	*0.68*	*1.080*	*0.150*	*0.22*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.750*	*0.300*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.450*	*0.600*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.600*	*0.150*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.300*	*0.600*	*0.72*	*Cum*
	TOTAL					**13.60**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.35*	*0.450*	*0.450*	*0.14*	*Cum*
		2	*0.35*	*0.858*	*1.360*	*0.82*	*Cum*
		2	*0.35*	*1.416*	*0.500*	*0.50*	*Cum*
	Section 2-2	*2*	*3.86*	*0.820*	*0.500*	*3.16*	*Cum*
		2	*3.86*	*1.045*	*0.750*	*6.04*	*Cum*
		2	*3.86*	*1.420*	*1.300*	*14.24*	*Cum*
	Section 3-3	*2*	*6.34*	*0.820*	*0.500*	*5.19*	*Cum*
		2	*6.34*	*0.985*	*0.550*	*6.86*	*Cum*
		2	*6.34*	*1.300*	*1.500*	*24.71*	*Cum*
	Section 5-5	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.858*	*1.187*	*5.08*	*Cum*
		2	*2.50*	*1.416*	*0.500*	*3.53*	*Cum*
	Section 6-6	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*0.615*	*0.550*	*0.90*	*Cum*
		2	*1.33*	*0.930*	*0.500*	*1.23*	*Cum*
	Deduction for M 25 grade of concrete	*2*	*0.82*	*8.500*	*0.500*	*-6.97*	*Cum*
	Floor	*1*	*0.63*	*1.700*	*0.700*	*0.74*	*Cum*
		1	*5.00*	*1.700*	*0.500*	*4.25*	*Cum*
		1	*0.50*	*1.700*	*0.200*	*0.17*	*Cum*
		1	*0.20*	*1.700*	*0.400*	*0.14*	*Cum*
		1	*4.30*	*1.700*	*0.500*	*3.66*	*Cum*
		1	*0.63*	*1.700*	*0.700*	*0.74*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*1*	*0.85*	*1.700*	*0.952*	*1.38*	*Cum*
	TOTAL					**78.07**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.700*	*0.150*	*0.18*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.78*	*0.450*	*0.050*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.78*	*0.450*	*0.050*	*0.15*	*Cum*
	Slab Bridge	*1*	*2.50*	*8.500*	*0.350*	*7.44*	*Cum*
	Wearing coat	*1*	*2.50*	*7.500*	*0.070*	*1.31*	*Cum*
	Dirt wall	*2*	*0.40*	*8.500*	*0.300*	*2.04*	*Cum*
		2	*0.82*	*8.500*	*0.500*	*6.97*	*Cum*
	TOTAL					**18.24**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*2.96*		*1.578*	*168.2*	*Kg*
a2	*10*	*13*	*6.90*		*0.616*	*55.3*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*24*	*2.88*		*0.616*	*42.6*	*Kg*
a5	*10*	*9*	*6.85*		*0.616*	*38.0*	*Kg*
x1	*12*	*42*	*2.50*		*0.888*	*93.2*	*Kg*
x2	*16*	*42*	*1.27*		*1.578*	*83.8*	*Kg*
x3	*10*	*24*	*2.40*		*0.616*	*35.5*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**78.07**	**0.003**	**0.234**	**7850.0**	**1838.6**	**Kg**
	Total Reinforcement Steel (in kg)					*2363.2*	*Kg*
	Total Weight in Metric Tonne					**2.36**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.35*		*0.450*	*0.64*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.35*		*1.360*	*1.92*	*Sqm*
		4		*0.858*	*1.360*	*4.67*	*Sqm*
		4	*0.35*		*0.500*	*0.71*	*Sqm*
		4		*1.416*	*0.500*	*2.83*	*Sqm*
	Section 2-2	*4*	*3.86*		*0.500*	*7.71*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*3.86*		*0.750*	*11.57*	*Sqm*
		4		*1.045*	*0.750*	*3.14*	*Sqm*
		4	*3.86*		*1.300*	*20.05*	*Sqm*
		4		*1.420*	*1.300*	*7.38*	*Sqm*
	Section 3-3	*4*	*6.34*		*0.500*	*12.67*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*6.34*		*0.550*	*13.94*	*Sqm*
		4		*0.985*	*0.550*	*2.17*	*Sqm*
		4	*6.34*		*1.500*	*38.01*	*Sqm*
		4		*1.300*	*1.500*	*7.80*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.450*	*4.49*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*1.187*	*11.85*	*Sqm*
		4		*0.858*	*1.187*	*4.07*	*Sqm*
		4	*2.50*		*0.500*	*4.99*	*Sqm*
		4		*1.416*	*0.500*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*0.550*	*2.92*	*Sqm*
		4		*0.615*	*0.550*	*1.35*	*Sqm*
		4	*1.33*		*0.500*	*2.65*	*Sqm*
		4		*0.930*	*0.500*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.700*	*0.700*	*2.38*	*Sqm*
		2	*5.00*		*0.500*	*5.00*	*Sqm*
		2		*1.700*	*0.500*	*1.70*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.50*		*0.200*	*0.20*	*Sqm*
		2		*1.700*	*0.200*	*0.68*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.700*	*0.400*	*1.36*	*Sqm*
		2	*4.30*		*0.500*	*4.30*	*Sqm*
		2		*1.700*	*0.500*	*1.70*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.700*	*0.700*	*2.38*	*Sqm*
	Crest	*2*	*0.85*		*0.952*	*1.62*	*Sqm*
		2		*1.700*	*0.952*	*3.24*	*Sqm*
	Slab	*2*	*2.50*		*0.35*	*1.75*	*Sqm*
		2		*8.50*	*0.35*	*5.95*	*Sqm*
		1	*2.50*	*8.50*		*21.25*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.300*	*3.43*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.600*	*6.49*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.150*	*1.20*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**253.71**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.142*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*1.100*	*0.300*	**0.66**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*1.100*	*0.150*	**0.66**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.78*	*0.450*		*3.05*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.78*	*0.450*		*3.05*	*Sqm*
	TOTAL					**6.10**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.924		1.92	**Cum**
	Abutment						
	Section 1-1	2	*0.43*	*0.517*		*0.443*	*Cum*
	Section 2-2	2	*3.86*	*0.174*		*1.345*	*Cum*
	Section 3-3	2	*6.65*	*0.174*		*2.320*	*Cum*
	Section 5-5	2	*2.54*	*0.517*		*2.625*	*Cum*
	Section 6-6	2	*0.68*	*0.174*		*0.235*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.71*	*0.150*	*0.600*	*1.713*	*Cum*
		2	*2.00*	0.150	*0.600*	*0.360*	*Cum*
	TOTAL					**10.96**	**Cum**
	SHARDA TYPE FALL OF HEIGHT 0.457 METER AT CH.3.650 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.89*	*1.384*	*1.305*	*3.231*	*Cum*
	Section 2-2	*2*	*2.00*	*1.110*	*1.305*	*5.794*	*Cum*
	Section 3-3	*2*	*2.50*	*0.990*	*1.105*	*5.470*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Section 5-5	*2*	*2.21*	*1.534*	*1.305*	*8.832*	*Cum*
	Section 6-6	*2*	*0.91*	*0.990*	*1.105*	*1.991*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.400*	*0.850*	*0.744*	*Cum*
	U/S Floor	*1*	*1.70*	*1.400*	*1.307*	*3.111*	*Cum*
	D/S Floor	*1*	*2.00*	*1.400*	*0.650*	*1.820*	*Cum*
		1	*2.80*	*1.400*	*0.500*	*1.960*	*Cum*
	D/S Key Floor	*1*	*0.63*	*1.400*	*0.850*	*0.744*	*Cum*
	Toe Wall D/S Portion	*1*	*5.20*	*0.750*	*0.900*	*3.510*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.50*	*0.600*	*0.750*	*1.350*	*Cum*
	TOTAL					**38.56**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.400*	*0.150*	*0.11*	*Cum*
		1	*0.78*	*1.400*	*0.150*	*0.16*	*Cum*
		1	*3.01*	*1.400*	*0.150*	*0.63*	*Cum*
		1	*0.28*	*1.400*	*0.150*	*0.06*	*Cum*
		1	*1.44*	*1.400*	*0.150*	*0.30*	*Cum*
		1	*0.78*	*1.400*	*0.150*	*0.16*	*Cum*
		1	*0.54*	*1.400*	*0.150*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*0.89*	*1.384*	*0.150*	*0.37*	*Cum*
	Section 2-2	*2*	*2.00*	*1.110*	*0.150*	*0.67*	*Cum*
	Section 3-3	*2*	*2.50*	*0.990*	*0.150*	*0.74*	*Cum*
	Section 5-5	*2*	*2.21*	*1.534*	*0.150*	*1.02*	*Cum*
	Section 6-6	*2*	*0.91*	*0.990*	*0.150*	*0.27*	*Cum*
	Toe Wall D/S Portion	*1*	*5.20*	*0.750*	*0.300*	*1.17*	*Cum*
	Toe Wall D/S Portion	*1*	*4.90*	*0.450*	*0.600*	*1.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.600*	*0.150*	*0.27*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.50*	*0.300*	*0.600*	*0.54*	*Cum*
	TOTAL					**7.92**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*0.74*	*0.450*	*0.450*	*0.30*	*Cum*
		2	*0.74*	*0.767*	*1.057*	*1.21*	*Cum*
		2	*0.74*	*1.234*	*0.500*	*0.92*	*Cum*
	Section 2-2	*2*	*2.00*	*0.450*	*0.450*	*0.81*	*Cum*
		2	*2.00*	*0.630*	*0.600*	*1.51*	*Cum*
		2	*2.00*	*0.960*	*0.500*	*1.92*	*Cum*
	Section 3-3	*2*	*2.23*	*0.450*	*0.450*	*0.90*	*Cum*
		2	*2.23*	*0.570*	*0.400*	*1.02*	*Cum*
		2	*2.23*	*0.840*	*0.500*	*1.87*	*Cum*
	Section 5-5	*2*	*2.16*	*0.450*	*0.450*	*0.88*	*Cum*
		2	*2.16*	*0.767*	*1.057*	*3.51*	*Cum*
		2	*2.16*	*1.234*	*0.500*	*2.67*	*Cum*
	Section 6-6	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*0.570*	*0.400*	*0.61*	*Cum*
		2	*1.33*	*0.840*	*0.500*	*1.12*	*Cum*
	Floor	*1*	*0.63*	*1.400*	*0.700*	*0.61*	*Cum*
		1	*3.70*	*1.400*	*0.500*	*2.59*	*Cum*
		1	*0.20*	*1.400*	*0.400*	*0.11*	*Cum*
		1	*0.31*	*1.400*	*0.200*	*0.09*	*Cum*
		1	*2.60*	*1.400*	*0.500*	*1.82*	*Cum*
		1	*0.63*	*1.400*	*0.700*	*0.61*	*Cum*
	Crest	*1*	*0.72*	*1.400*	*0.747*	*0.75*	*Cum*
	TOTAL					**26.36**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*1.400*	*0.150*	*0.13*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.22*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.22*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.54**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**26.36**	**0.00**	**0.079**	**7850.0**	**620.68**	**Kg**
	Total Weight in Metric Tonne					**0.62**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*0.74*		*0.450*	*1.34*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*0.74*		*1.057*	*3.15*	*Sqm*
		4		*0.767*	*1.057*	*3.24*	*Sqm*
		4	*0.74*		*0.500*	*1.49*	*Sqm*
		4		*1.234*	*0.500*	*2.47*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.450*	*3.60*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.00*		*0.600*	*4.80*	*Sqm*
		4		*0.630*	*0.600*	*1.51*	*Sqm*
		4	*2.00*		*0.500*	*4.00*	*Sqm*
		4		*0.960*	*0.500*	*1.92*	*Sqm*
	Section 3-3	*4*	*2.23*		*0.450*	*4.01*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.23*		*0.400*	*3.57*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*2.23*		*0.500*	*4.46*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Section 5-5	*4*	*2.16*		*0.450*	*3.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.16*		*1.057*	*9.14*	*Sqm*
		4		*0.767*	*1.057*	*3.24*	*Sqm*
		4	*2.16*		*0.500*	*4.32*	*Sqm*
		4		*1.234*	*0.500*	*2.47*	*Sqm*
	Section 6-6	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*0.400*	*2.13*	*Sqm*
		4		*0.570*	*0.400*	*0.91*	*Sqm*
		4	*1.33*		*0.500*	*2.66*	*Sqm*
		4		*0.840*	*0.500*	*1.68*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.400*	*0.700*	*1.96*	*Sqm*
		2	*3.70*		*0.500*	*3.70*	*Sqm*
		2		*1.400*	*0.500*	*1.40*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.400*	*0.400*	*1.12*	*Sqm*
		2	*0.31*		*0.200*	*0.12*	*Sqm*
		2		*1.400*	*0.200*	*0.56*	*Sqm*
		2	*2.6*		*0.500*	*2.60*	*Sqm*
		2		*1.4*	*0.500*	*1.40*	*Sqm*
		2	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.400*	*0.700*	*1.96*	*Sqm*
	Crest	*2*	*0.72*		*0.747*	*1.07*	*Sqm*
		2		*1.400*	*0.747*	*2.09*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.20*		*0.300*	*3.12*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.90*		*0.600*	*5.88*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.150*	*0.90*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.50*		*0.600*	*3.60*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**114.51**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.50*	*1.871*		*5.61*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	TOTAL					**5.61**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.50*	*0.800*	*0.300*	**0.36**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.50*	*0.800*	*0.150*	**0.36**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.22*	*0.450*		*4.15*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.22*	*0.450*		*4.15*	*Sqm*
	TOTAL					**8.30**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		1.068		1.07	**Cum**
	Abutment						
	Section 1-1	2	*0.89*	*0.400*		*0.716*	*Cum*
	Section 2-2	2	*2.00*	*0.399*		*1.596*	*Cum*
	Section 3-3	2	*2.50*	*0.380*		*1.900*	*Cum*
	Section 5-5	2	*2.21*	*0.400*		*1.765*	*Cum*
	Section 6-6	2	*0.91*	*0.380*		*0.692*	*Cum*
	Toe wall	2	*5.20*	*0.150*	*0.600*	*1.560*	*Cum*
		2	*1.50*	0.150	*0.600*	*0.270*	*Cum*
	TOTAL					**9.57**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.610 METER AT CH.4.200 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		66.09		**66.09**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
		1	*0.782*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*4.568*	*1.46*	*0.15*	*1.00*	*Cum*
		1	*0.283*	*1.46*	*0.15*	*0.06*	*Cum*
		1	*0.447*	*1.46*	*0.15*	*0.10*	*Cum*
		1	*0.783*	*1.46*	*0.15*	*0.17*	*Cum*
		1	*0.542*	*1.46*	*0.15*	*0.12*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*2.28*	*1.57*	*0.15*	*1.07*	*Cum*
	Section 2-2	*2*	*2.00*	*1.20*	*0.15*	*0.72*	*Cum*
	Section 3-3	*2*	*1.50*	*1.08*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.54*	*1.72*	*0.15*	*1.31*	*Cum*
	Section 6-6	*2*	*1.05*	*1.08*	*0.15*	*0.34*	*Cum*
	Toe Wall D/S Portion	*1*	*5.71*	*0.75*	*0.30*	*1.28*	*Cum*
	Toe Wall D/S Portion	*1*	*5.41*	*0.45*	*0.60*	*1.46*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**9.49**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*2.16*	*0.45*	*0.45*	*0.88*	*Cum*
		2	*2.16*	*0.83*	*1.36*	*4.87*	*Cum*
		2	*2.16*	*1.42*	*0.50*	*3.06*	*Cum*
	Section 2-2	*2*	*2.00*	*0.45*	*0.45*	*0.81*	*Cum*
		2	*2.00*	*0.68*	*0.75*	*2.03*	*Cum*
		2	*2.00*	*1.05*	*0.50*	*2.10*	*Cum*
	Section 3-3	*2*	*1.19*	*0.45*	*0.45*	*0.48*	*Cum*
		2	*1.19*	*0.62*	*0.55*	*0.80*	*Cum*
		2	*1.19*	*0.93*	*0.50*	*1.10*	*Cum*
	Section 5-5	*2*	*2.50*	*0.45*	*0.45*	*1.01*	*Cum*
		2	*2.50*	*0.83*	*1.36*	*5.63*	*Cum*
		2	*2.50*	*1.42*	*0.50*	*3.54*	*Cum*
	Section 6-6	*2*	*1.51*	*0.45*	*0.45*	*0.61*	*Cum*
		2	*1.51*	*0.62*	*0.55*	*1.02*	*Cum*
		2	*1.51*	*0.93*	*0.50*	*1.40*	*Cum*
	Floor	*1*	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
		1	*5.00*	*1.46*	*0.50*	*3.65*	*Cum*
		1	*0.50*	*1.46*	*0.20*	*0.15*	*Cum*
		1	*0.20*	*1.46*	*0.40*	*0.12*	*Cum*
		1	*1.80*	*1.46*	*0.50*	*1.31*	*Cum*
		1	*0.63*	*1.46*	*0.70*	*0.64*	*Cum*
	Crest	*1*	*0.85*	*1.46*	*0.95*	*1.18*	*Cum*
	TOTAL					**37.04**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*1.46*	*0.15*	*0.15*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*	*0.05*	*0.23*	*Cum*
	TOTAL					**0.61**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	37.04	0.30%	0.11	7850	872.22	Kg
	Total Weight in Metric Tonne					**0.87**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*2.16*		*0.45*	*3.90*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.16*		*1.36*	*11.77*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.16*		*0.50*	*4.33*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 2-2	*4*	*2.00*		*0.45*	*3.60*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.00*		*0.75*	*6.00*	*Sqm*
		4		*0.68*	*0.75*	*2.03*	*Sqm*
		4	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*1.05*	*0.50*	*2.10*	*Sqm*
	Section 3-3	*4*	*1.19*		*0.45*	*2.13*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.19*		*0.55*	*2.61*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.19*		*0.50*	*2.37*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Section 5-5	*4*	*2.50*		*0.45*	*4.50*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.50*		*1.36*	*13.59*	*Sqm*
		4		*0.83*	*1.36*	*4.50*	*Sqm*
		4	*2.50*		*0.50*	*5.00*	*Sqm*
		4		*1.42*	*0.50*	*2.83*	*Sqm*
	Section 6-6	*4*	*1.51*		*0.45*	*2.72*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.51*		*0.55*	*3.32*	*Sqm*
		4		*0.62*	*0.55*	*1.35*	*Sqm*
		4	*1.51*		*0.50*	*3.02*	*Sqm*
		4		*0.93*	*0.50*	*1.86*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
		2	*5.00*		*0.50*	*5.00*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*1.46*	*0.40*	*1.17*	*Sqm*
		2	*1.80*		*0.50*	*1.80*	*Sqm*
		2		*1.46*	*0.50*	*1.46*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.46*	*0.70*	*2.04*	*Sqm*
	Crest	*2*	*0.8505*		*0.952*	*1.62*	*Sqm*
		2		*1.46*	*0.952*	*2.78*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.71*		*0.30*	*3.43*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.41*		*0.60*	*6.49*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**142.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.14*		*8.57*	*Sqm*
	TOTAL					**8.57**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.86*	*0.30*	**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.86*	*0.15*	**0.52**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.13*	*0.45*		*4.56*	*Sqm*
	TOTAL					**9.12**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		10.44		10.44	**Cum**
	TOTAL					**10.44**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.765 METER AT CH.4.940 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*2.239*	*9.921*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*2.239*	*15.718*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*2.039*	*7.172*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*2.239*	*20.950*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*2.039*	*6.530*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.000*	*0.850*	*0.531*	*Cum*
	U/S Floor	*1*	*2.50*	*1.000*	*2.017*	*5.043*	*Cum*
	D/S Floor	*1*	*1.69*	*1.000*	*0.850*	*1.439*	*Cum*
		1	*2.60*	*1.000*	*0.650*	*1.690*	*Cum*
	D/S Key Floor	*1*	*0.68*	*1.000*	*1.050*	*0.709*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.900*	*3.443*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.75*	*0.600*	*0.750*	*1.575*	*Cum*
						74.72	**Cum**
2	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	PCC Below Floor	*1*	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
		1	*0.84*	*1.000*	*0.150*	*0.13*	*Cum*
		1	*0.28*	*1.000*	*0.150*	*0.04*	*Cum*
		1	*0.21*	*1.000*	*0.150*	*0.03*	*Cum*
		1	*4.32*	*1.000*	*0.150*	*0.65*	*Cum*
		1	*0.42*	*1.000*	*0.150*	*0.06*	*Cum*
		1	*1.04*	*1.000*	*0.150*	*0.16*	*Cum*
		1	*1.01*	*1.000*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*1.000*	*0.150*	*0.08*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.22*	*1.810*	*0.150*	*0.66*	*Cum*
	Section 2-2	*2*	*3.00*	*1.170*	*0.150*	*1.05*	*Cum*
	Section 3-3	*2*	*1.68*	*1.050*	*0.150*	*0.53*	*Cum*
	Section 5-5	*2*	*2.39*	*1.960*	*0.150*	*1.40*	*Cum*
	Section 6-6	*2*	*1.53*	*1.050*	*0.150*	*0.48*	*Cum*
	Toe Wall D/S Portion	*1*	*5.10*	*0.750*	*0.300*	*1.15*	*Cum*
	Toe Wall D/S Portion	*1*	*4.80*	*0.450*	*0.600*	*1.30*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.600*	*0.150*	*0.32*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.75*	*0.300*	*0.600*	*0.63*	*Cum*
	TOTAL					**8.90**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.07*	*0.980*	*1.767*	*3.72*	*Cum*
		2	*1.07*	*1.660*	*0.600*	*2.14*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.660*	*0.700*	*2.77*	*Cum*
		2	*3.00*	*1.020*	*0.600*	*3.67*	*Cum*
	Section 3-3	*2*	*1.90*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.90*	*0.600*	*0.500*	*1.14*	*Cum*
		2	*1.90*	*0.900*	*0.500*	*1.71*	*Cum*
	Section 5-5	*2*	*2.34*	*0.450*	*0.450*	*0.95*	*Cum*
		2	*2.34*	*0.980*	*1.767*	*8.12*	*Cum*
		2	*2.34*	*1.660*	*0.600*	*4.67*	*Cum*
	Section 6-6	*2*	*1.45*	*0.450*	*0.450*	*0.59*	*Cum*
		2	*1.45*	*0.600*	*0.500*	*0.87*	*Cum*
		2	*1.45*	*0.900*	*0.500*	*1.31*	*Cum*
	Floor	*1*	*0.63*	*1.000*	*0.700*	*0.44*	*Cum*
		1	*1.31*	*1.000*	*0.500*	*0.65*	*Cum*
		1	*4.19*	*1.000*	*0.500*	*2.10*	*Cum*
		1	*0.40*	*1.000*	*0.200*	*0.08*	*Cum*
		1	*0.30*	*1.000*	*0.257*	*0.08*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*2.30*	*1.000*	*0.500*	*1.15*	*Cum*
		1	*0.68*	*1.000*	*0.900*	*0.61*	*Cum*
	Crest	*1*	*0.97*	*1.000*	*1.330*	*1.29*	*Cum*
	TOTAL					**40.46**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*1.000*	*0.150*	*0.11*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*	*0.050*	*0.24*	*Cum*
	TOTAL					**0.59**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**40.46**	**0.00**	**0.121**	**7850.000**	**952.89**	**Kg**
	Total Weight in Metric Tonne					**0.95**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.07*		*0.450*	*1.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.07*		*1.767*	*7.59*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*1.07*		*0.600*	*2.58*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*0.660*	*0.700*	*1.85*	*Sqm*
		4	*3.00*		*0.600*	*7.20*	*Sqm*
		4		*1.020*	*0.600*	*2.45*	*Sqm*
	Section 3-3	*4*	*1.90*		*0.450*	*3.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.90*		*0.500*	*3.80*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Section 5-5	*4*	*2.34*		*0.450*	*4.22*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.34*		*1.767*	*16.56*	*Sqm*
		4		*0.980*	*1.767*	*6.93*	*Sqm*
		4	*2.34*		*0.600*	*5.62*	*Sqm*
		4		*1.660*	*0.600*	*3.98*	*Sqm*
	Section 6-6	*4*	*1.45*		*0.450*	*2.61*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.600*	*0.500*	*1.20*	*Sqm*
		4	*1.45*		*0.500*	*2.90*	*Sqm*
		4		*0.900*	*0.500*	*1.80*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.000*	*0.700*	*1.40*	*Sqm*
		2	*4.19*		*0.500*	*4.19*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.40*		*0.200*	*0.16*	*Sqm*
		2		*1.000*	*0.200*	*0.40*	*Sqm*
		2	*0.30*		*0.257*	*0.15*	*Sqm*
		2		*1.000*	*0.257*	*0.51*	*Sqm*
		2	*2.30*		*0.500*	*2.30*	*Sqm*
		2		*1.000*	*0.500*	*1.00*	*Sqm*
		2	*0.68*		*0.900*	*1.22*	*Sqm*
		2		*1.000*	*0.900*	*1.80*	*Sqm*
	Crest	*2*	*0.97*		*1.330*	*2.58*	*Sqm*
		2		*1.000*	*1.330*	*2.66*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.10*		*0.300*	*3.06*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.80*		*0.600*	*5.76*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.150*	*1.05*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.75*		*0.600*	*4.20*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**151.50**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.75*	*2.051*		*7.18*	*Sqm*
	TOTAL					**7.18**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.75*	*0.400*	*0.300*	**0.21**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.75*	*0.400*	*0.150*	**0.21**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.64*	*0.450*		*4.79*	*Sqm*
	TOTAL					**9.58**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		4.055		4.05	**Cum**
	Abutment						
	Section 1-1	2	*1.22*	*1.200*		*2.938*	*Cum*
	Section 2-2	2	*3.00*	*0.771*		*4.626*	*Cum*
	Section 3-3	2	*1.68*	*0.570*		*1.910*	*Cum*
	Section 5-5	2	*2.39*	*1.200*		*5.729*	*Cum*
	Section 6-6	2	*1.53*	*0.570*		*1.739*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.10*	*0.150*	*0.600*	*1.530*	*Cum*
		2	*1.75*	0.150	*0.600*	*0.315*	*Cum*
	TOTAL					**22.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.305 METER AT CH.5.920 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
		1		40.56		**40.56**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
		1	*0.783*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*3.568*	*0.80*	*0.15*	*0.43*	*Cum*
		1	*0.282*	*0.80*	*0.15*	*0.03*	*Cum*
		1	*0.946*	*0.80*	*0.15*	*0.11*	*Cum*
		1	*0.782*	*0.80*	*0.15*	*0.09*	*Cum*
		1	*0.542*	*0.80*	*0.15*	*0.07*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.77*	*1.38*	*0.15*	*0.73*	*Cum*
	Section 2-2	*2*	*1.85*	*1.16*	*0.15*	*0.65*	*Cum*
	Section 3-3	*2*	*1.48*	*1.04*	*0.15*	*0.46*	*Cum*
	Section 5-5	*2*	*2.66*	*1.53*	*0.15*	*1.22*	*Cum*
	Section 6-6	*2*	*1.51*	*1.04*	*0.15*	*0.47*	*Cum*
	Toe Wall D/S Portion	*1*	*4.87*	*0.75*	*0.30*	*1.10*	*Cum*
	Toe Wall D/S Portion	*1*	*4.57*	*0.45*	*0.60*	*1.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.60*	*0.15*	*0.36*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**7.84**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.54*	*0.45*	*0.45*	*0.62*	*Cum*
		2	*1.54*	*0.77*	*1.06*	*2.49*	*Cum*
		2	*1.54*	*1.23*	*0.50*	*1.90*	*Cum*
	Section 2-2	*2*	*1.85*	*0.45*	*0.45*	*0.75*	*Cum*
		2	*1.85*	*0.66*	*0.69*	*1.68*	*Cum*
		2	*1.85*	*1.01*	*0.50*	*1.88*	*Cum*
	Section 3-3	*2*	*1.70*	*0.45*	*0.45*	*0.69*	*Cum*
		2	*1.70*	*0.60*	*0.49*	*1.00*	*Cum*
		2	*1.70*	*0.89*	*0.50*	*1.52*	*Cum*
	Section 5-5	*2*	*2.62*	*0.45*	*0.45*	*1.06*	*Cum*
		2	*2.62*	*0.77*	*1.06*	*4.23*	*Cum*
		2	*2.62*	*1.23*	*0.50*	*3.22*	*Cum*
	Section 6-6	*2*	*1.44*	*0.45*	*0.45*	*0.58*	*Cum*
		2	*1.44*	*0.60*	*0.49*	*0.84*	*Cum*
		2	*1.44*	*0.89*	*0.50*	*1.29*	*Cum*
	Floor	*1*	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
		1	*4.00*	*0.80*	*0.50*	*1.60*	*Cum*
		1	*0.50*	*0.80*	*0.20*	*0.08*	*Cum*
		1	*0.20*	*0.80*	*0.40*	*0.06*	*Cum*
		1	*2.30*	*0.80*	*0.50*	*0.92*	*Cum*
		1	*0.63*	*0.80*	*0.70*	*0.35*	*Cum*
	Crest	*1*	*0.70*	*0.80*	*0.64*	*0.36*	*Cum*
	TOTAL					**27.47**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.60*	*0.80*	*0.15*	*0.07*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.92*	*0.45*	*0.05*	*0.22*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.92*	*0.45*	*0.05*	*0.22*	*Sqm*
	TOTAL					**0.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**27.99**	**0.30%**	**0.08**	**7850**	**659.22**	**Kg**
	Total Weight in Metric Tonne					**0.66**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.54*		*0.45*	*2.78*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.54*		*1.06*	*6.51*	*Sqm*
		4		*0.77*	*1.06*	*3.23*	*Sqm*
		4	*1.54*		*0.50*	*3.08*	*Sqm*
		4		*1.23*	*0.50*	*2.47*	*Sqm*
	Section 2-2	*4*	*1.85*		*0.45*	*3.33*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.85*		*0.69*	*5.11*	*Sqm*
		4		*0.66*	*0.69*	*1.81*	*Sqm*
		4	*1.85*		*0.50*	*3.70*	*Sqm*
		4		*1.01*	*0.50*	*2.03*	*Sqm*
	Section 3-3	*4*	*1.70*		*0.45*	*3.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.70*		*0.49*	*3.34*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*1.70*		*0.50*	*3.41*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Section 5-5	*4*	*2.62*		*0.45*	*4.71*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.62*		*1.06*	*11.04*	*Sqm*
		4		*0.77*	*1.06*	*3.23*	*Sqm*
		4	*2.62*		*0.50*	*5.23*	*Sqm*
		4		*1.23*	*0.50*	*2.47*	*Sqm*
	Section 6-6	*4*	*1.44*		*0.45*	*2.59*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.44*		*0.49*	*2.82*	*Sqm*
		4		*0.60*	*0.49*	*1.17*	*Sqm*
		4	*1.44*		*0.50*	*2.88*	*Sqm*
		4		*0.89*	*0.50*	*1.79*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
		2	*4.00*		*0.50*	*4.00*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.50*		*0.20*	*0.20*	*Sqm*
		2		*0.80*	*0.20*	*0.32*	*Sqm*
		2	*0.20*		*0.40*	*0.16*	*Sqm*
		2		*0.80*	*0.40*	*0.64*	*Sqm*
		2	*2.30*		*0.50*	*2.30*	*Sqm*
		2		*0.80*	*0.50*	*0.80*	*Sqm*
		2	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*0.80*	*0.70*	*1.12*	*Sqm*
	Crest	*2*	*0.6985*		*0.64*	*0.89*	*Sqm*
		2		*0.8*	*0.64*	*1.02*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.87*		*0.30*	*2.92*	*Sqm*
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.57*		*0.60*	*5.48*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**120.38**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.00*	*2.03*		*8.14*	*Sqm*
	TOTAL					**8.14**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.20*	*0.30*	**0.12**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.20*	*0.15*	**0.12**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.92*	*0.45*		*4.46*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.92*	*0.45*		*4.46*	*Sqm*
	TOTAL					**8.93**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
		1		10.28		10.28	Cum
	TOTAL					**10.28**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR IGUNI MR.						
	SHARDA TYPE FALL OF HEIGHT 1.676 METER AT CH.1.350 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.40*	*2.068*	*2.179*	*12.595*	*Cum*
	Section 2-2	*2*	*3.25*	*1.062*	*2.179*	*15.042*	*Cum*
	Section 3-3	*2*	*3.45*	*0.942*	*1.979*	*12.863*	*Cum*
	Section 5-5	*2*	*1.91*	*2.218*	*2.179*	*18.438*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*1.979*	*3.057*	*Cum*
	U/S Key Floor	*1*	*0.70*	*0.700*	*1.150*	*0.564*	*Cum*
	U/S Floor	*1*	*3.50*	*0.700*	*2.626*	*6.434*	*Cum*
	D/S Floor	*1*	*3.25*	*0.700*	*1.150*	*2.616*	*Cum*
		1	*3.75*	*0.700*	*0.950*	*2.494*	*Cum*
	D/S Key Floor	*1*	*2.45*	*0.700*	*0.900*	*1.544*	*Cum*
	Toe Wall D/S Portion	*1*	*4.26*	*0.750*	*0.900*	*2.876*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.25*	*0.600*	*0.750*	*1.125*	*Cum*
	TOTAL					**79.65**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.700*	*0.150*	*0.06*	*Cum*
		1	*1.12*	*0.700*	*0.150*	*0.12*	*Cum*
		1	*0.77*	*0.700*	*0.150*	*0.08*	*Cum*
		1	*0.28*	*0.700*	*0.150*	*0.03*	*Cum*
		1	*4.90*	*0.700*	*0.150*	*0.51*	*Cum*
		1	*0.49*	*0.700*	*0.150*	*0.05*	*Cum*
		1	*0.79*	*0.700*	*0.150*	*0.08*	*Cum*
		1	*0.07*	*0.700*	*0.150*	*0.01*	*Cum*
		1	*1.02*	*0.700*	*0.150*	*0.11*	*Cum*
		1	*1.84*	*0.700*	*0.150*	*0.19*	*Cum*
		1	*0.54*	*0.700*	*0.150*	*0.06*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.40*	*2.068*	*0.150*	*0.87*	*Cum*
	Section 2-2	*2*	*3.25*	*1.062*	*0.150*	*1.04*	*Cum*
	Section 3-3	*2*	*3.45*	*0.942*	*0.150*	*0.97*	*Cum*
	Section 5-5	*2*	*1.91*	*2.218*	*0.150*	*1.27*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.26*	*0.750*	*0.300*	*0.96*	*Cum*
	Toe Wall D/S Portion	*1*	*3.96*	*0.450*	*0.600*	*1.07*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.600*	*0.150*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.300*	*0.600*	*0.45*	*Cum*
	TOTAL					**8.38**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.25*	*0.450*	*0.450*	*0.51*	*Cum*
		2	*1.25*	*1.109*	*2.196*	*6.08*	*Cum*
		2	*1.25*	*1.918*	*0.800*	*3.83*	*Cum*
	Section 2-2	*2*	*3.25*	*0.450*	*0.450*	*1.32*	*Cum*
		2	*3.25*	*0.606*	*0.520*	*2.05*	*Cum*
		2	*3.25*	*0.912*	*0.800*	*4.74*	*Cum*
	Section 3-3	*2*	*3.20*	*0.450*	*0.450*	*1.30*	*Cum*
		2	*3.20*	*0.546*	*0.320*	*1.12*	*Cum*
		2	*3.20*	*0.792*	*0.650*	*3.30*	*Cum*
	Section 5-5	*2*	*1.91*	*0.450*	*0.450*	*0.77*	*Cum*
		2	*1.91*	*1.109*	*2.196*	*9.29*	*Cum*
		2	*1.91*	*1.918*	*0.600*	*4.39*	*Cum*
	Section 6-6	*2*	*1.23*	*0.450*	*0.450*	*0.50*	*Cum*
		2	*1.23*	*0.546*	*0.320*	*0.43*	*Cum*
		2	*1.23*	*0.792*	*0.600*	*1.16*	*Cum*
	Floor	*1*	*0.70*	*0.700*	*1.000*	*0.49*	*Cum*
		1	*1.88*	*0.700*	*0.600*	*0.79*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*0.700*	*4.300*	*0.60*	*Cum*
		1	*4.67*	*0.700*	*0.800*	*2.61*	*Cum*
		1	*0.28*	*0.700*	*0.350*	*0.07*	*Cum*
		1	*0.20*	*0.700*	*0.550*	*0.08*	*Cum*
		1	*1.05*	*0.700*	*0.650*	*0.48*	*Cum*
		1	*0.05*	*0.700*	*0.625*	*0.02*	*Cum*
		1	*2.45*	*0.700*	*0.750*	*1.29*	*Cum*
		1	*0.86*	*0.700*	*1.650*	*1.00*	*Cum*
	Crest	*1*	*1.11*	*0.700*	*1.911*	*1.48*	*Cum*
	TOTAL					**49.68**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*0.700*	*0.150*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*11.71*	*0.450*	*0.050*	*0.26*	*Cum*
	On Abutment Top (Right Side)	*1*	*11.71*	*0.450*	*0.050*	*0.26*	*Cum*
	TOTAL					**0.61**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**49.68**	**0.00**	**0.149**	**7850.0**	**1170.06**	**Kg**
	Total Weight in Metric Tonne					**1.17**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.25*		*0.450*	*2.25*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.25*		*2.196*	*10.96*	*Sqm*
		4		*1.109*	*2.196*	*9.74*	*Sqm*
		4	*1.25*		*0.800*	*3.99*	*Sqm*
		4		*1.918*	*0.800*	*6.14*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.450*	*5.85*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.25*		*0.520*	*6.76*	*Sqm*
		4		*0.606*	*0.520*	*1.26*	*Sqm*
		4	*3.25*		*0.800*	*10.40*	*Sqm*
		4		*0.912*	*0.800*	*2.92*	*Sqm*
	Section 3-3	*4*	*3.20*		*0.450*	*5.77*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.20*		*0.320*	*4.10*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*3.20*		*0.650*	*8.33*	*Sqm*
		4		*0.792*	*0.650*	*2.06*	*Sqm*
	Section 5-5	*4*	*1.91*		*0.450*	*3.43*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.91*		*2.196*	*16.76*	*Sqm*
		4		*1.109*	*2.196*	*9.74*	*Sqm*
		4	*1.91*		*0.600*	*4.58*	*Sqm*
		4		*1.918*	*0.600*	*4.60*	*Sqm*
	Section 6-6	*4*	*1.23*		*0.450*	*2.21*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.23*		*0.320*	*1.57*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.23*		*0.600*	*2.94*	*Sqm*
		4		*0.792*	*0.600*	*1.90*	*Sqm*
	Floor	*2*	*0.70*		*1.000*	*1.40*	*Sqm*
		2		*0.700*	*1.000*	*1.40*	*Sqm*
		2	*1.88*		*0.600*	*2.26*	*Sqm*
		2		*0.700*	*0.600*	*0.84*	*Sqm*
		2	*0.20*		*4.300*	*1.72*	*Sqm*
		2		*0.700*	*4.300*	*6.02*	*Sqm*
		2	*4.67*		*0.800*	*7.47*	*Sqm*
		2		*0.700*	*0.800*	*1.12*	*Sqm*
		2	*0.28*		*0.350*	*0.20*	*Sqm*
		2		*0.700*	*0.350*	*0.49*	*Sqm*
		2	*0.20*		*0.550*	*0.22*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.700*	*0.550*	*0.77*	*Sqm*
		2	*1.05*		*0.650*	*1.37*	*Sqm*
		2		*0.700*	*0.650*	*0.91*	*Sqm*
		2	*0.05*		*0.625*	*0.06*	*Sqm*
		2		*0.700*	*0.625*	*0.88*	*Sqm*
		2	*2.45*		*0.750*	*3.68*	*Sqm*
		2		*0.700*	*0.750*	*1.05*	*Sqm*
		2	*0.86*		*1.650*	*2.85*	*Sqm*
		2		*0.700*	*1.650*	*2.31*	*Sqm*
	Crest	*2*	*1.11*		*1.911*	*4.24*	*Sqm*
		2		*0.700*	*1.911*	*2.68*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.26*		*0.300*	*2.56*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.96*		*0.600*	*4.75*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.600*	*3.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**190.74**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.727*		*4.32*	*Sqm*
	TOTAL					**4.32**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*1.25*	*0.100*	*0.300*	**0.04**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*1.25*	*0.100*	*0.150*	**0.04**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.71*	*0.450*		*5.27*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.71*	*0.450*		*5.27*	*Sqm*
	TOTAL					**10.54**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		9.954		9.95	**Cum**
	Abutment						
	Section 1-1	2	*1.40*	*0.709*		*1.982*	*Cum*
	Section 2-2	2	*3.25*	*0.668*		*4.342*	*Cum*
	Section 3-3	2	*3.45*	*0.445*		*3.071*	*Cum*
	Section 5-5	2	*1.91*	*0.709*		*2.705*	*Cum*
	Section 6-6	2	*0.82*	*0.445*		*0.730*	*Cum*
	Toe wall	2	*4.26*	*0.150*	*0.600*	*1.278*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**24.29**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR GURARU SUB DY.						
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.0.180 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.48*	*2.241*	*3.067*	*20.324*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*3.067*	*34.568*	*Cum*
	Section 3-3	*2*	*2.95*	*1.206*	*2.867*	*20.400*	*Cum*
	Section 5-5	*2*	*2.85*	*2.391*	*3.067*	*41.777*	*Cum*
	Section 6-6	*2*	*1.23*	*1.206*	*2.867*	*8.533*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.840*	*0.850*	*0.978*	*Cum*
	U/S Floor	*1*	*2.46*	*1.840*	*2.767*	*12.535*	*Cum*
	D/S Floor	*1*	*5.79*	*1.840*	*1.150*	*12.247*	*Cum*
		1	*3.25*	*1.840*	*0.950*	*5.681*	*Cum*
	D/S Key Floor	*1*	*0.89*	*1.840*	*1.900*	*3.103*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.750*	*0.900*	*4.536*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*2.50*	*2.140*	*0.750*	*4.013*	*Cum*
						168.69	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.840*	*0.150*	*0.15*	*Cum*
		1	*0.78*	*1.840*	*0.150*	*0.22*	*Cum*
		1	*1.21*	*1.840*	*0.150*	*0.33*	*Cum*
		1	*0.42*	*1.840*	*0.150*	*0.12*	*Cum*
		1	*6.31*	*1.840*	*0.150*	*1.74*	*Cum*
		1	*0.71*	*1.840*	*0.150*	*0.20*	*Cum*
		1	*0.87*	*1.840*	*0.150*	*0.24*	*Cum*
		1	*1.96*	*1.840*	*0.150*	*0.54*	*Cum*
		1	*0.54*	*1.840*	*0.150*	*0.15*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.48*	*2.241*	*0.150*	*0.99*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*0.150*	*1.69*	*Cum*
	Section 3-3	*2*	*2.95*	*1.206*	*0.150*	*1.07*	*Cum*
	Section 5-5	*2*	*2.85*	*2.391*	*0.150*	*2.04*	*Cum*
	Section 6-6	*2*	*1.23*	*1.206*	*0.150*	*0.45*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.750*	*0.300*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.42*	*0.450*	*0.600*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*2.50*	*2.140*	*0.150*	*0.80*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**14.87**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*1.195*	*2.484*	*7.89*	*Cum*
		2	*1.33*	*2.091*	*0.800*	*4.44*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.738*	*0.960*	*6.02*	*Cum*
		2	*4.25*	*1.176*	*0.800*	*8.00*	*Cum*
	Section 3-3	*2*	*2.57*	*0.450*	*0.450*	*1.04*	*Cum*
		2	*2.57*	*0.678*	*0.760*	*2.65*	*Cum*
		2	*2.57*	*1.056*	*0.500*	*2.72*	*Cum*
	Section 5-5	*2*	*3.30*	*0.450*	*0.450*	*1.34*	*Cum*
		2	*3.30*	*1.195*	*2.484*	*19.62*	*Cum*
		2	*3.30*	*2.091*	*0.500*	*6.91*	*Cum*
	Section 6-6	*2*	*1.76*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.76*	*0.678*	*0.760*	*1.82*	*Cum*
		2	*1.76*	*1.056*	*0.500*	*1.86*	*Cum*
	Floor	*1*	*0.63*	*1.840*	*0.700*	*0.81*	*Cum*
		1	*2.16*	*1.840*	*0.500*	*1.99*	*Cum*
		1	*0.30*	*1.840*	*0.650*	*0.36*	*Cum*
		1	*5.79*	*1.840*	*0.800*	*8.52*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.65*	*1.840*	*0.500*	*0.60*	*Cum*
		1	*0.20*	*1.840*	*0.400*	*0.15*	*Cum*
		1	*3.05*	*1.840*	*0.500*	*2.81*	*Cum*
		1	*0.89*	*1.840*	*1.750*	*2.86*	*Cum*
	Crest	*1*	*1.22*	*1.840*	*1.964*	*4.41*	*Cum*
	TOTAL					**89.76**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*1.840*	*0.150*	*0.25*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.93*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.93*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**0.88**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**89.76**	**0.00**	**0.269**	**7850.0**	**2113.88**	**Kg**
	Total Weight in Metric Tonne					**2.11**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*2.484*	*13.20*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*1.33*		*0.800*	*4.25*	*Sqm*
		4		*2.091*	*0.800*	*6.69*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.960*	*16.32*	*Sqm*
		4		*0.738*	*0.960*	*2.83*	*Sqm*
		4	*4.25*		*0.800*	*13.60*	*Sqm*
		4		*1.176*	*0.800*	*3.76*	*Sqm*
	Section 3-3	*4*	*2.57*		*0.450*	*4.63*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.57*		*0.760*	*7.82*	*Sqm*
		4		*0.678*	*0.760*	*2.06*	*Sqm*
		4	*2.57*		*0.500*	*5.14*	*Sqm*
		4		*1.056*	*0.500*	*2.11*	*Sqm*
	Section 5-5	*4*	*3.30*		*0.450*	*5.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.30*		*2.484*	*32.83*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*3.30*		*0.500*	*6.61*	*Sqm*
		4		*2.091*	*0.500*	*4.18*	*Sqm*
	Section 6-6	*4*	*1.76*		*0.450*	*3.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.76*		*0.760*	*5.36*	*Sqm*
		4		*0.678*	*0.760*	*2.06*	*Sqm*
		4	*1.76*		*0.500*	*3.52*	*Sqm*
		4		*1.056*	*0.500*	*2.11*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.840*	*0.700*	*2.58*	*Sqm*
		2	*2.162*		*0.5*	*2.16*	*Sqm*
		2		*1.84*	*0.500*	*1.84*	*Sqm*
		2	*0.3*		*0.65*	*0.39*	*Sqm*
		2		*1.84*	*0.650*	*2.39*	*Sqm*
		2	*5.79*		*0.800*	*9.26*	*Sqm*
		2		*1.840*	*0.800*	*2.94*	*Sqm*
		2	*0.65*		*0.500*	*0.65*	*Sqm*
		2		*1.840*	*0.500*	*1.84*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.840*	*0.400*	*1.47*	*Sqm*
		2	*3.05*		*0.500*	*3.05*	*Sqm*
		2		*1.840*	*0.500*	*1.84*	*Sqm*
		2	*0.89*		*1.750*	*3.11*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.840*	*1.750*	*6.44*	*Sqm*
	Crest	*2*	*1.22*		*1.964*	*4.79*	*Sqm*
		2		*1.840*	*1.964*	*7.23*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.300*	*4.03*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.42*		*0.600*	*7.70*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*2.140*	*0.150*	*1.28*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**261.31**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.520*		*12.60*	*Sqm*
	TOTAL					**12.60**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.240*	*0.300*	**0.93**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.240*	*0.150*	**0.93**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.93*	*0.450*		*6.27*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.93*	*0.450*		*6.27*	*Sqm*
	TOTAL					**12.54**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		18.837		18.84	**Cum**
	Abutment						
	Section 1-1	2	*1.48*	*2.094*		*6.192*	*Cum*
	Section 2-2	2	*4.25*	*1.122*		*9.537*	*Cum*
	Section 3-3	2	*2.95*	*0.854*		*5.039*	*Cum*
	Section 5-5	2	*2.85*	*2.052*		*11.690*	*Cum*
	Section 6-6	2	*1.23*	*0.854*		*2.108*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.72*	*0.150*	*0.600*	*2.016*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**55.87**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.1.000 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.48*	*2.241*	*3.067*	*20.324*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*3.067*	*34.568*	*Cum*
	Section 3-3	*2*	*2.95*	*1.206*	*2.867*	*20.400*	*Cum*
	Section 5-5	*2*	*2.85*	*2.391*	*3.067*	*41.777*	*Cum*
	Section 6-6	*2*	*1.23*	*1.206*	*2.867*	*8.533*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.840*	*0.850*	*0.978*	*Cum*
	U/S Floor	*1*	*2.46*	*1.840*	*2.767*	*12.535*	*Cum*
	D/S Floor	*1*	*5.79*	*1.840*	*1.150*	*12.247*	*Cum*
		1	*3.25*	*1.840*	*0.950*	*5.681*	*Cum*
	D/S Key Floor	*1*	*0.89*	*1.840*	*1.900*	*3.103*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.750*	*0.900*	*4.536*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*2.50*	*2.140*	*0.750*	*4.013*	*Cum*
						168.69	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.840*	*0.150*	*0.15*	*Cum*
		1	*0.78*	*1.840*	*0.150*	*0.22*	*Cum*
		1	*1.21*	*1.840*	*0.150*	*0.33*	*Cum*
		1	*0.42*	*1.840*	*0.150*	*0.12*	*Cum*
		1	*6.31*	*1.840*	*0.150*	*1.74*	*Cum*
		1	*0.71*	*1.840*	*0.150*	*0.20*	*Cum*
		1	*0.87*	*1.840*	*0.150*	*0.24*	*Cum*
		1	*1.96*	*1.840*	*0.150*	*0.54*	*Cum*
		1	*0.54*	*1.840*	*0.150*	*0.15*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.48*	*2.241*	*0.150*	*0.99*	*Cum*
	Section 2-2	*2*	*4.25*	*1.326*	*0.150*	*1.69*	*Cum*
	Section 3-3	*2*	*2.95*	*1.206*	*0.150*	*1.07*	*Cum*
	Section 5-5	*2*	*2.85*	*2.391*	*0.150*	*2.04*	*Cum*
	Section 6-6	*2*	*1.23*	*1.206*	*0.150*	*0.45*	*Cum*
	Toe Wall D/S Portion	*1*	*6.72*	*0.750*	*0.300*	*1.51*	*Cum*
	Toe Wall D/S Portion	*1*	*6.42*	*0.450*	*0.600*	*1.73*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*2.50*	*2.140*	*0.150*	*0.80*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**14.87**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.33*	*0.450*	*0.450*	*0.54*	*Cum*
		2	*1.33*	*1.195*	*2.484*	*7.89*	*Cum*
		2	*1.33*	*2.091*	*0.800*	*4.44*	*Cum*
	Section 2-2	*2*	*4.25*	*0.450*	*0.450*	*1.72*	*Cum*
		2	*4.25*	*0.738*	*0.960*	*6.02*	*Cum*
		2	*4.25*	*1.176*	*0.800*	*8.00*	*Cum*
	Section 3-3	*2*	*2.57*	*0.450*	*0.450*	*1.04*	*Cum*
		2	*2.57*	*0.678*	*0.760*	*2.65*	*Cum*
		2	*2.57*	*1.056*	*0.500*	*2.72*	*Cum*
	Section 5-5	*2*	*3.30*	*0.450*	*0.450*	*1.34*	*Cum*
		2	*3.30*	*1.195*	*2.484*	*19.62*	*Cum*
		2	*3.30*	*2.091*	*0.500*	*6.91*	*Cum*
	Section 6-6	*2*	*1.76*	*0.450*	*0.450*	*0.71*	*Cum*
		2	*1.76*	*0.678*	*0.760*	*1.82*	*Cum*
		2	*1.76*	*1.056*	*0.500*	*1.86*	*Cum*
	Floor	*1*	*0.63*	*1.840*	*0.700*	*0.81*	*Cum*
		1	*2.16*	*1.840*	*0.500*	*1.99*	*Cum*
		1	*0.30*	*1.840*	*0.650*	*0.36*	*Cum*
		1	*5.79*	*1.840*	*0.800*	*8.52*	*Cum*
		1	*0.65*	*1.840*	*0.500*	*0.60*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*1.840*	*0.400*	*0.15*	*Cum*
		1	*3.05*	*1.840*	*0.500*	*2.81*	*Cum*
		1	*0.89*	*1.840*	*1.750*	*2.86*	*Cum*
	Crest	*1*	*1.22*	*1.840*	*1.964*	*4.41*	*Cum*
	TOTAL					**89.76**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.90*	*1.840*	*0.150*	*0.25*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.93*	*0.450*	*0.050*	*0.31*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.93*	*0.450*	*0.050*	*0.31*	*Cum*
	TOTAL					**0.88**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**89.76**	**0.00**	**0.269**	**7850.0**	**2113.88**	**Kg**
	Total Weight in Metric Tonne					**2.11**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.33*		*0.450*	*2.39*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.33*		*2.484*	*13.20*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*1.33*		*0.800*	*4.25*	*Sqm*
		4		*2.091*	*0.800*	*6.69*	*Sqm*
	Section 2-2	*4*	*4.25*		*0.450*	*7.65*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*4.25*		*0.960*	*16.32*	*Sqm*
		4		*0.738*	*0.960*	*2.83*	*Sqm*
		4	*4.25*		*0.800*	*13.60*	*Sqm*
		4		*1.176*	*0.800*	*3.76*	*Sqm*
	Section 3-3	*4*	*2.57*		*0.450*	*4.63*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.57*		*0.760*	*7.82*	*Sqm*
		4		*0.678*	*0.760*	*2.06*	*Sqm*
		4	*2.57*		*0.500*	*5.14*	*Sqm*
		4		*1.056*	*0.500*	*2.11*	*Sqm*
	Section 5-5	*4*	*3.30*		*0.450*	*5.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.30*		*2.484*	*32.83*	*Sqm*
		4		*1.195*	*2.484*	*11.87*	*Sqm*
		4	*3.30*		*0.500*	*6.61*	*Sqm*
		4		*2.091*	*0.500*	*4.18*	*Sqm*
	Section 6-6	*4*	*1.76*		*0.450*	*3.17*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.76*		*0.760*	*5.36*	*Sqm*
		4		*0.678*	*0.760*	*2.06*	*Sqm*
		4	*1.76*		*0.500*	*3.52*	*Sqm*
		4		*1.056*	*0.500*	*2.11*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.840*	*0.700*	*2.58*	*Sqm*
		2	*2.162*		*0.5*	*2.16*	*Sqm*
		2		*1.84*	*0.500*	*1.84*	*Sqm*
		2	*0.3*		*0.65*	*0.39*	*Sqm*
		2		*1.84*	*0.650*	*2.39*	*Sqm*
		2	*5.79*		*0.800*	*9.26*	*Sqm*
		2		*1.840*	*0.800*	*2.94*	*Sqm*
		2	*0.65*		*0.500*	*0.65*	*Sqm*
		2		*1.840*	*0.500*	*1.84*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*1.840*	*0.400*	*1.47*	*Sqm*
		2	*3.05*		*0.500*	*3.05*	*Sqm*
		2		*1.840*	*0.500*	*1.84*	*Sqm*
		2	*0.89*		*1.750*	*3.11*	*Sqm*
		2		*1.840*	*1.750*	*6.44*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Crest	*2*	*1.22*		*1.964*	*4.79*	*Sqm*
		2		*1.840*	*1.964*	*7.23*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.72*		*0.300*	*4.03*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.42*		*0.600*	*7.70*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*2.140*	*0.150*	*1.28*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**261.31**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.520*		*12.60*	*Sqm*
	TOTAL					**12.60**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.240*	*0.300*	**0.93**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.240*	*0.150*	**0.93**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.93*	*0.450*		*6.27*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.93*	*0.450*		*6.27*	*Sqm*
	TOTAL					**12.54**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		14.276		14.28	**Cum**
	Abutment						
	Section 1-1	2	*1.48*	*1.850*		*5.470*	*Cum*
	Section 2-2	2	*4.25*	*1.122*		*9.537*	*Cum*
	Section 3-3	2	*2.95*	*0.854*		*5.039*	*Cum*
	Section 5-5	2	*2.85*	*1.850*		*10.539*	*Cum*
	Section 6-6	2	*1.23*	*0.854*		*2.108*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.72*	*0.150*	*0.600*	*2.016*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**49.43**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH. 1.550 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.30*	*2.070*	*1.767*	*9.477*	*Cum*
	Section 2-2	*2*	*3.50*	*1.338*	*1.767*	*16.550*	*Cum*
	Section 3-3	*2*	*2.95*	*1.218*	*1.567*	*11.261*	*Cum*
	Section 5-5	*2*	*3.28*	*2.220*	*1.567*	*22.827*	*Cum*
	Section 6-6	*2*	*1.25*	*1.218*	*1.567*	*4.779*	*Cum*
	U/S Key Floor	*1*	*0.63*	*1.650*	*0.850*	*0.877*	*Cum*
	U/S Floor	*1*	*2.75*	*1.650*	*2.070*	*9.393*	*Cum*
	D/S Floor	*1*	*5.25*	*1.650*	*0.850*	*7.363*	*Cum*
		1	*4.92*	*1.650*	*0.200*	*1.623*	*Cum*
		1	*3.25*	*1.650*	*0.650*	*3.486*	*Cum*
	D/S Key Floor	*1*	*0.75*	*1.650*	*1.350*	*1.671*	*Cum*
	Toe Wall D/S Portion	*1*	*6.59*	*0.750*	*0.900*	*4.448*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.50*	*0.600*	*0.750*	*2.250*	*Cum*
						96.00	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*1.650*	*0.150*	*0.13*	*Cum*
		1	*0.78*	*1.650*	*0.150*	*0.19*	*Cum*
		1	*5.50*	*1.650*	*0.150*	*1.36*	*Cum*
		1	*0.50*	*1.650*	*0.150*	*0.12*	*Cum*
		1	*1.70*	*1.650*	*0.150*	*0.42*	*Cum*
		1	*1.34*	*1.650*	*0.150*	*0.33*	*Cum*
		1	*0.54*	*1.650*	*0.150*	*0.13*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.30*	*2.070*	*0.150*	*0.80*	*Cum*
	Section 2-2	*2*	*3.50*	*1.338*	*0.150*	*1.40*	*Cum*
	Section 3-3	*2*	*2.95*	*1.218*	*0.150*	*1.08*	*Cum*
	Section 5-5	*2*	*3.28*	*2.220*	*0.150*	*2.19*	*Cum*
	Section 6-6	*2*	*1.25*	*1.218*	*0.150*	*0.46*	*Cum*
	Toe Wall D/S Portion	*1*	*6.59*	*0.750*	*0.300*	*1.48*	*Cum*
	Toe Wall D/S Portion	*1*	*6.29*	*0.450*	*0.600*	*1.70*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.600*	*0.150*	*0.45*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.50*	*0.300*	*0.600*	*0.90*	*Cum*
	TOTAL					**13.16**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.07*	*0.450*	*0.450*	*0.43*	*Cum*
		2	*1.07*	*1.110*	*2.200*	*5.23*	*Cum*
		2	*1.07*	*1.920*	*0.700*	*2.88*	*Cum*
	Section 2-2	*2*	*3.50*	*0.450*	*0.450*	*1.42*	*Cum*
		2	*3.50*	*0.744*	*0.980*	*5.10*	*Cum*
		2	*3.50*	*1.188*	*0.700*	*5.82*	*Cum*
	Section 3-3	*2*	*2.57*	*0.450*	*0.450*	*1.04*	*Cum*
		2	*2.57*	*0.684*	*0.780*	*2.74*	*Cum*
		2	*2.57*	*1.068*	*0.550*	*3.01*	*Cum*
	Section 5-5	*2*	*3.24*	*0.450*	*0.450*	*1.31*	*Cum*
		2	*3.24*	*1.110*	*2.200*	*15.81*	*Cum*
		2	*3.24*	*1.920*	*0.500*	*6.22*	*Cum*
	Section 6-6	*2*	*1.86*	*0.450*	*0.450*	*0.75*	*Cum*
		2	*1.86*	*0.684*	*0.780*	*1.99*	*Cum*
		2	*1.86*	*1.068*	*0.550*	*2.19*	*Cum*
	Floor	*1*	*0.63*	*1.650*	*0.700*	*0.72*	*Cum*
		1	*8.00*	*1.650*	*0.500*	*6.60*	*Cum*
		1	*4.92*	*1.650*	*0.200*	*1.62*	*Cum*
		1	*0.18*	*1.650*	*0.350*	*0.10*	*Cum*
		1	*0.20*	*1.650*	*0.450*	*0.15*	*Cum*
		1	*3.05*	*1.650*	*0.800*	*4.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.75*	*1.650*	*1.200*	*1.49*	*Cum*
	Crest	*1*	*1.06*	*1.650*	*1.603*	*2.80*	*Cum*
	TOTAL					**73.44**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.80*	*1.650*	*0.150*	*0.20*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*13.38*	*0.450*	*0.050*	*0.30*	*Cum*
	On Abutment Top (Right Side)	*1*	*13.38*	*0.450*	*0.050*	*0.30*	*Cum*
	TOTAL					**0.80**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**73.44**	**0.00**	**0.220**	**7850.0**	**1729.54**	**Kg**
	Total Weight in Metric Tonne					**1.73**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.07*		*0.450*	*1.93*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.07*		*2.200*	*9.42*	*Sqm*
		4		*1.110*	*2.200*	*9.77*	*Sqm*
		4	*1.07*		*0.700*	*3.00*	*Sqm*
		4		*1.920*	*0.700*	*5.38*	*Sqm*
	Section 2-2	*4*	*3.50*		*0.450*	*6.30*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.50*		*0.980*	*13.72*	*Sqm*
		4		*0.744*	*0.980*	*2.92*	*Sqm*
		4	*3.50*		*0.700*	*9.80*	*Sqm*
		4		*1.188*	*0.700*	*3.33*	*Sqm*
	Section 3-3	*4*	*2.57*		*0.450*	*4.62*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.57*		*0.780*	*8.01*	*Sqm*
		4		*0.684*	*0.780*	*2.13*	*Sqm*
		4	*2.57*		*0.550*	*5.65*	*Sqm*
		4		*1.068*	*0.550*	*2.35*	*Sqm*
	Section 5-5	*4*	*3.24*		*0.450*	*5.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.24*		*2.200*	*28.49*	*Sqm*
		4		*1.110*	*2.200*	*9.77*	*Sqm*
		4	*3.24*		*0.500*	*6.47*	*Sqm*
		4		*1.920*	*0.500*	*3.84*	*Sqm*
	Section 6-6	*4*	*1.86*		*0.450*	*3.35*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.86*		*0.780*	*5.81*	*Sqm*
		4		*0.684*	*0.780*	*2.13*	*Sqm*
		4	*1.86*		*0.550*	*4.09*	*Sqm*
		4		*1.068*	*0.550*	*2.35*	*Sqm*
	Floor	*2*	*0.63*		*0.700*	*0.88*	*Sqm*
		2		*1.650*	*0.700*	*2.31*	*Sqm*
		2	*8.00*		*0.500*	*8.00*	*Sqm*
		2		*1.650*	*0.500*	*1.65*	*Sqm*
		2	*0.18*		*0.350*	*0.12*	*Sqm*
		2		*1.650*	*0.350*	*1.16*	*Sqm*
		2	*0.20*		*0.450*	*0.18*	*Sqm*
		2		*1.650*	*0.450*	*1.49*	*Sqm*
		2	*3.05*		*0.800*	*4.88*	*Sqm*
		2		*1.650*	*0.800*	*2.64*	*Sqm*
		2	*0.75*		*1.200*	*1.80*	*Sqm*
		2		*1.650*	*1.200*	*3.96*	*Sqm*
	Crest	*2*	*1.06*		*1.603*	*3.40*	*Sqm*
		2		*1.650*	*1.603*	*5.29*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.59*		*0.300*	*3.95*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*6.29*		*0.600*	*7.55*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.150*	*1.50*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**223.30**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*2.50*	*2.557*		*12.79*	*Sqm*
	TOTAL					**12.79**	**Sqm**
8	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.50*	*1.050*	*0.300*	**0.79**	**Cum**
9	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.50*	*1.050*	*0.150*	**0.79**	**Cum**
10	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*13.38*	*0.450*		*6.02*	*Sqm*
	On Abutment Top (Right Side)	*1*	*13.38*	*0.450*		*6.02*	*Sqm*
	TOTAL					**12.04**	**Sqm**
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		6.765		6.77	**Cum**
	Abutment						
	Section 1-1	2	*1.30*	*0.637*		*1.650*	*Cum*
	Section 2-2	2	*3.50*	*0.637*		*4.459*	*Cum*
	Section 3-3	2	*2.95*	*0.452*		*2.667*	*Cum*
	Section 5-5	2	*3.28*	*0.607*		*3.983*	*Cum*
	Section 6-6	2	*1.25*	*0.452*		*1.132*	*Cum*
	D/S protection	2					
	Toe wall	2	*6.59*	*0.150*	*0.600*	*1.977*	*Cum*
		2	*2.50*	0.150	*0.600*	*0.450*	*Cum*
	TOTAL					**23.08**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 0.914 METER AT CH.2.500 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.30*	*1.78*	*2.699*	*12.509*	*Cum*
	Section 2-2	*2*	*3.25*	*1.24*	*2.699*	*21.684*	*Cum*
	Section 3-3	*2*	*1.45*	*1.12*	*2.499*	*8.088*	*Cum*
	Section 5-5	*2*	*2.63*	*1.93*	*2.699*	*27.410*	*Cum*
	Section 6-6	*2*	*1.12*	*1.12*	*2.499*	*6.225*	*Cum*
	U/S Key Floor	*1*	*0.625*	*1.400*	*0.850*	*0.744*	*Cum*
	U/S Floor	*1*	*2.500*	*1.400*	*2.464*	*8.624*	*Cum*
	D/S Floor	*1*	*1.963*	*1.400*	*0.850*	*2.336*	*Cum*
		1	*1.800*	*1.400*	*0.650*	*1.638*	*Cum*
	D/S Key Floor	*1*	*0.625*	*1.400*	*1.150*	*1.006*	*Cum*
	Toe Wall D/S Portion	*1*	*5.830*	*0.750*	*0.900*	*3.935*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.000*	*0.600*	*0.750*	*1.800*	*Cum*
						96.00	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.542*	*1.40*	*0.15*	*0.11*	*Cum*
		1	*0.782*	*1.40*	*0.15*	*0.16*	*Cum*
		1	*0.282*	*1.40*	*1.15*	*0.45*	*Cum*
		1	*0.007*	*1.40*	*2.15*	*0.02*	*Cum*
		1	*4.744*	*1.40*	*0.15*	*1.00*	*Cum*
		1	*0.353*	*1.40*	*0.15*	*0.07*	*Cum*
		1	*0.238*	*1.40*	*0.15*	*0.05*	*Cum*
		1	*1.118*	*1.40*	*0.15*	*0.23*	*Cum*
		1	*0.542*	*1.40*	*0.15*	*0.11*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.30*	*1.78*	*0.15*	*0.70*	*Cum*
	Section 2-2	*2*	*3.25*	*1.24*	*0.15*	*1.21*	*Cum*
	Section 3-3	*2*	*1.45*	*1.12*	*0.15*	*0.49*	*Cum*
	Section 5-5	*2*	*2.63*	*1.93*	*0.15*	*1.52*	*Cum*
	Section 6-6	*2*	*1.12*	*1.12*	*0.15*	*0.37*	*Cum*
	Toe Wall D/S Portion	*1*	*5.83*	*0.75*	*0.30*	*1.31*	*Cum*
	Toe Wall D/S Portion	*1*	*5.53*	*0.45*	*0.60*	*1.49*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*2.00*	*0.60*	*0.15*	*0.18*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*2.00*	*0.30*	*0.60*	*0.72*	*Cum*
	TOTAL					**10.21**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.15*	*0.45*	*0.45*	*0.47*	*Cum*
		2	*1.15*	*0.97*	*1.72*	*3.83*	*Cum*
		2	*1.15*	*1.63*	*0.60*	*2.25*	*Cum*
	Section 2-2	*2*	*3.25*	*0.45*	*0.45*	*1.32*	*Cum*
		2	*3.25*	*0.69*	*0.61*	*2.75*	*Cum*
		2	*3.25*	*1.09*	*0.60*	*4.24*	*Cum*
	Section 3-3	*2*	*1.12*	*0.45*	*0.45*	*0.45*	*Cum*
		2	*1.12*	*0.63*	*0.61*	*0.86*	*Cum*
		2	*1.12*	*0.97*	*0.50*	*1.08*	*Cum*
	Section 5-5	*2*	*2.58*	*0.45*	*0.45*	*1.04*	*Cum*
		2	*2.58*	*0.97*	*1.72*	*8.59*	*Cum*
		2	*2.58*	*1.63*	*0.60*	*5.05*	*Cum*
	Section 6-6	*2*	*1.73*	*0.45*	*0.45*	*0.70*	*Cum*
		2	*1.73*	*0.63*	*0.61*	*1.34*	*Cum*
		2	*1.73*	*0.97*	*0.50*	*1.67*	*Cum*
	Floor	*1*	*0.63*	*1.40*	*0.70*	*0.61*	*Cum*
		1	*1.24*	*1.40*	*0.50*	*0.87*	*Cum*
		1	*4.46*	*1.40*	*0.55*	*3.44*	*Cum*
		1	*0.28*	*1.40*	*0.25*	*0.10*	*Cum*
		1	*0.25*	*1.40*	*0.40*	*0.14*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*1.55*	*1.40*	*0.50*	*1.09*	*Cum*
		1	*0.63*	*1.40*	*1.00*	*0.88*	*Cum*
	Crest	*1*	*1.06*	*1.40*	*1.24*	*1.83*	*Cum*
	TOTAL					**44.58**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.85*	*1.40*	*0.15*	*0.18*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*	*0.05*	*0.15*	*Cum*
	TOTAL					**0.48**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**44.58**	**0.30%**	**0.13**	**7850**	**1049.83**	**Kg**
	Total Weight in Metric Tonne					**1.05**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.15*		*0.45*	*2.07*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.15*		*1.72*	*7.92*	*Sqm*
		4		*0.97*	*1.72*	*6.67*	*Sqm*
		4	*1.15*		*0.60*	*2.76*	*Sqm*
		4		*1.63*	*0.60*	*3.92*	*Sqm*
	Section 2-2	*4*	*3.25*		*0.45*	*5.85*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*3.25*		*0.61*	*7.93*	*Sqm*
		4		*0.69*	*0.61*	*1.69*	*Sqm*
		4	*3.25*		*0.60*	*7.80*	*Sqm*
		4		*1.09*	*0.60*	*2.61*	*Sqm*
	Section 3-3	*4*	*1.12*		*0.45*	*2.01*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.12*		*0.61*	*2.73*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.12*		*0.50*	*2.23*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Section 5-5	*4*	*2.58*		*0.45*	*4.64*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*2.58*		*1.72*	*17.76*	*Sqm*
		4		*0.97*	*1.72*	*6.67*	*Sqm*
		4	*2.58*		*0.60*	*6.18*	*Sqm*
		4		*1.63*	*0.60*	*3.92*	*Sqm*
	Section 6-6	*4*	*1.73*		*0.45*	*3.12*	*Sqm*
		4		*0.45*	*0.45*	*0.81*	*Sqm*
		4	*1.73*		*0.61*	*4.23*	*Sqm*
		4		*0.63*	*0.61*	*1.54*	*Sqm*
		4	*1.73*		*0.50*	*3.46*	*Sqm*
		4		*0.97*	*0.50*	*1.93*	*Sqm*
	Floor	*2*	*0.63*		*0.70*	*0.88*	*Sqm*
		2		*1.40*	*0.70*	*1.96*	*Sqm*
		2	*1.24*		*0.50*	*1.24*	*Sqm*
		2		*1.40*	*0.50*	*1.40*	*Sqm*
		2	*4.46*		*0.55*	*4.91*	*Sqm*
		2		*1.40*	*0.55*	*1.54*	*Sqm*
		2	*0.28*		*0.25*	*0.14*	*Sqm*
		2		*1.40*	*0.25*	*0.70*	*Sqm*
		2	*0.25*		*0.40*	*0.20*	*Sqm*
		2		*1.40*	*0.40*	*1.12*	*Sqm*
		2	*1.55*		*0.50*	*1.55*	*Sqm*
		2		*1.40*	*0.50*	*1.40*	*Sqm*
		2	*0.63*		*1.00*	*1.25*	*Sqm*
		2		*1.40*	*1.00*	*2.80*	*Sqm*
	Crest	*2*	*1.0565*		*1.239*	*2.62*	*Sqm*
		2		*1.4*	*1.239*	*3.47*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.83*		*0.30*	*3.50*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.75*	*0.30*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*5.53*		*0.60*	*6.64*	*Sqm*
		2		*0.45*	*0.60*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.15*	*1.20*	*Sqm*
		4		*0.60*	*0.15*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*2.00*		*0.60*	*4.80*	*Sqm*
		4		*0.30*	*0.60*	*0.72*	*Sqm*
	TOTAL					**162.53**	**Sqm**
7	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.						
	In D/S Portion	*1*	*2.00*	*0.80*	*0.30*	**0.48**	**Cum**
8	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.						
		2	*2.00*	*0.80*	*0.15*	**0.48**	**Cum**
9	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.63*	*0.45*		*2.98*	*Sqm*
	TOTAL					**5.97**	**Sqm**
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2			**2.00**	**No.**
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.72		3.72	**Cum**
	Abutment						
	Section 1-1	2	*1.30*	*1.81*		*4.702*	*Cum*
	Section 2-2	2	*3.25*	*0.88*		*5.720*	*Cum*
	Section 3-3	2	*1.45*	*0.66*		*1.914*	*Cum*
	Section 5-5	2	*2.63*	*1.81*		*9.504*	*Cum*
	Section 6-6	2	*1.12*	*0.66*		*1.473*	*Cum*
	D/S protection	2					
	Toe wall	2	*5.83*	*0.15*	*0.60*	*1.049*	*Cum*
		2	*2.00*	*0.15*	*0.60*	*2.400*	*Cum*
	TOTAL					**30.48**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES OF SHARDA TYPE FALL FOR KONCHI MINOR						
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.325 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.794*	*1.837*	*7.903*	*Cum*
	Section 2-2	*2*	*2.75*	*1.062*	*1.837*	*10.730*	*Cum*
	Section 3-3	*2*	*2.70*	*0.942*	*1.637*	*8.327*	*Cum*
	Section 5-5	*2*	*2.01*	*1.944*	*1.837*	*14.345*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*1.637*	*2.529*	*Cum*
	U/S Key Floor	*1*	*0.65*	*0.600*	*0.950*	*0.371*	*Cum*
	U/S Floor	*1*	*2.75*	*0.600*	*2.070*	*3.416*	*Cum*
	D/S Floor	*1*	*2.75*	*0.600*	*0.700*	*1.155*	*Cum*
		1	*3.00*	*0.600*	*0.550*	*0.990*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.600*	*1.250*	*0.544*	*Cum*
	Toe Wall D/S Portion	*1*	*2.08*	*0.750*	*0.900*	*1.404*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.25*	*0.600*	*0.750*	*1.125*	*Cum*
	TOTAL					**52.84**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
		1	*0.89*	*0.600*	*0.150*	*0.08*	*Cum*
		1	*0.48*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*0.14*	*0.600*	*0.150*	*0.01*	*Cum*
		1	*4.15*	*0.600*	*0.150*	*0.37*	*Cum*
		1	*0.42*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*1.44*	*0.600*	*0.150*	*0.13*	*Cum*
		1	*1.23*	*0.600*	*0.150*	*0.11*	*Cum*
		1	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.794*	*0.150*	*0.65*	*Cum*
	Section 2-2	*2*	*2.75*	*1.062*	*0.150*	*0.88*	*Cum*
	Section 3-3	*2*	*2.70*	*0.942*	*0.150*	*0.76*	*Cum*
	Section 5-5	*2*	*2.01*	*1.944*	*0.150*	*1.17*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*2.08*	*0.750*	*0.300*	*0.47*	*Cum*
	Toe Wall D/S Portion	*1*	*1.78*	*0.450*	*0.600*	*0.48*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.600*	*0.150*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.300*	*0.600*	*0.45*	*Cum*
	TOTAL					**6.20**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.972*	*1.740*	*3.55*	*Cum*
		2	*1.05*	*1.644*	*0.600*	*2.07*	*Cum*
	Section 2-2	*2*	*2.75*	*0.450*	*0.450*	*1.11*	*Cum*
		2	*2.75*	*0.606*	*0.520*	*1.73*	*Cum*
		2	*2.75*	*0.912*	*0.600*	*3.01*	*Cum*
	Section 3-3	*2*	*2.45*	*0.450*	*0.450*	*0.99*	*Cum*
		2	*2.45*	*0.546*	*0.320*	*0.86*	*Cum*
		2	*2.45*	*0.792*	*0.500*	*1.94*	*Cum*
	Section 5-5	*2*	*1.96*	*0.450*	*0.450*	*0.80*	*Cum*
		2	*1.96*	*0.972*	*1.740*	*6.65*	*Cum*
		2	*1.96*	*1.644*	*0.500*	*3.23*	*Cum*
	Section 6-6	*2*	*1.23*	*0.450*	*0.450*	*0.50*	*Cum*
		2	*1.23*	*0.546*	*0.320*	*0.43*	*Cum*
		2	*1.23*	*0.792*	*0.500*	*0.97*	*Cum*
	Floor	*1*	*0.65*	*0.600*	*0.800*	*0.31*	*Cum*
		1	*1.49*	*0.600*	*0.500*	*0.45*	*Cum*
		1	*0.10*	*0.600*	*0.550*	*0.03*	*Cum*
		1	*3.92*	*0.600*	*0.600*	*1.41*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.20*	*0.600*	*0.400*	*0.05*	*Cum*
		1	*0.26*	*0.600*	*0.300*	*0.05*	*Cum*
		1	*2.80*	*0.600*	*0.500*	*0.84*	*Cum*
		1	*0.73*	*0.600*	*1.100*	*0.48*	*Cum*
	Crest	*1*	*0.93*	*0.600*	*1.395*	*0.78*	*Cum*
	TOTAL					**32.65**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.600*	*0.200*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*10.21*	*0.450*	*0.050*	*0.23*	*Cum*
	On Abutment Top (Right Side)	*1*	*10.21*	*0.450*	*0.050*	*0.23*	*Cum*
	TOTAL					**0.54**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**32.65**	**0.003**	**0.098**	**7850.0**	**768.95**	**Kg**
	Total reinforcement (in Kg)					**768.95**	**Kg**
	Total Weight in Metric Tonne					**0.77**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.450*	*1.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*1.740*	*7.30*	*Sqm*
		4		*0.972*	*1.740*	*6.77*	*Sqm*
		4	*1.05*		*0.600*	*2.52*	*Sqm*
		4		*1.644*	*0.600*	*3.95*	*Sqm*
	Section 2-2	*4*	*2.75*		*0.450*	*4.95*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.75*		*0.520*	*5.72*	*Sqm*
		4		*0.606*	*0.520*	*1.26*	*Sqm*
		4	*2.75*		*0.600*	*6.60*	*Sqm*
		4		*0.912*	*0.600*	*2.19*	*Sqm*
	Section 3-3	*4*	*2.45*		*0.450*	*4.42*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.45*		*0.320*	*3.14*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*2.45*		*0.500*	*4.91*	*Sqm*
		4		*0.792*	*0.500*	*1.58*	*Sqm*
	Section 5-5	*4*	*1.96*		*0.450*	*3.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.96*		*1.740*	*13.67*	*Sqm*
		4		*0.972*	*1.740*	*6.77*	*Sqm*
		4	*1.96*		*0.500*	*3.93*	*Sqm*
		4		*1.644*	*0.500*	*3.29*	*Sqm*
	Section 6-6	*4*	*1.23*		*0.450*	*2.21*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.23*		*0.320*	*1.57*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.23*		*0.500*	*2.45*	*Sqm*
		4		*0.792*	*0.500*	*1.58*	*Sqm*
	Floor	*2*	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*0.600*	*0.800*	*0.96*	*Sqm*
		2	*1.49*		*0.500*	*1.49*	*Sqm*
		2		*0.600*	*0.500*	*0.60*	*Sqm*
		2	*0.10*		*0.550*	*0.11*	*Sqm*
		2		*0.600*	*0.550*	*0.66*	*Sqm*
		2	*3.92*		*0.600*	*4.70*	*Sqm*
		2		*0.600*	*0.600*	*0.72*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.600*	*0.400*	*0.48*	*Sqm*
		2	*0.26*		*0.300*	*0.15*	*Sqm*
		2		*0.600*	*0.300*	*0.36*	*Sqm*
		2	*2.8*		*0.500*	*2.80*	*Sqm*
		2		*0.6*	*0.500*	*0.60*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.600*	*1.100*	*1.32*	*Sqm*
	Crest	*2*	*0.93*		*1.395*	*2.60*	*Sqm*
		2		*0.600*	*1.395*	*1.67*	*Sqm*
	Toe Wall D/S Portion	*2*	*2.08*		*0.300*	*1.25*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*1.78*		*0.600*	*2.14*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.600*	*3.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**132.85**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.727*		*4.32*	*Sqm*
	TOTAL					**4.32**	**Sqm**
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*10.21*	*0.450*		*4.59*	*Sqm*
	On Abutment Top (Right Side)	*1*	*10.21*	*0.450*		*4.59*	*Sqm*
	TOTAL					**9.19**	**Sqm**
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.288		5.29	Cum
	Abutment						
	Section 1-1	2	*1.20*	*0.681*		*1.633*	*Cum*
	Section 2-2	2	*2.75*	*0.612*		*3.366*	*Cum*
	Section 3-3	2	*2.70*	*0.423*		*2.284*	*Cum*
	Section 5-5	2	*2.01*	*0.592*		*2.378*	*Cum*
	Section 6-6	2	*0.82*	*0.423*		*0.694*	*Cum*
	Toe wall	2	*2.08*	*0.150*	*0.600*	*0.624*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**16.49**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.524 METER AT CH.1.225 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.31*	*1.974*	*1.952*	*10.111*	*Cum*
	Section 2-2	*2*	*3.00*	*1.062*	*1.952*	*12.438*	*Cum*
	Section 3-3	*2*	*3.95*	*0.942*	*1.752*	*13.038*	*Cum*
	Section 5-5	*2*	*1.97*	*2.124*	*1.952*	*16.344*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*1.752*	*2.707*	*Cum*
	U/S Key Floor	*1*	*0.75*	*0.600*	*1.350*	*0.608*	*Cum*
	U/S Floor	*1*	*3.50*	*0.600*	*2.420*	*5.082*	*Cum*
	D/S Floor	*1*	*3.00*	*0.600*	*1.050*	*1.890*	*Cum*
		1	*4.00*	*0.600*	*0.850*	*2.040*	*Cum*
	D/S Key Floor	*1*	*2.70*	*0.600*	*0.700*	*1.134*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.900*	*2.808*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.25*	*0.600*	*0.750*	*1.125*	*Cum*
	TOTAL					**69.32**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
		1	*1.34*	*0.600*	*0.150*	*0.12*	*Cum*
		1	*0.83*	*0.600*	*0.150*	*0.07*	*Cum*
		1	*0.21*	*0.600*	*0.150*	*0.02*	*Cum*
		1	*4.55*	*0.600*	*0.150*	*0.41*	*Cum*
		1	*0.42*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*0.84*	*0.600*	*0.150*	*0.08*	*Cum*
		1	*0.07*	*0.600*	*0.150*	*0.01*	*Cum*
		1	*1.37*	*0.600*	*0.150*	*0.12*	*Cum*
		1	*1.62*	*0.600*	*0.150*	*0.15*	*Cum*
		1	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.31*	*1.974*	*0.150*	*0.78*	*Cum*
	Section 2-2	*2*	*3.00*	*1.062*	*0.150*	*0.96*	*Cum*
	Section 3-3	*2*	*3.95*	*0.942*	*0.150*	*1.12*	*Cum*
	Section 5-5	*2*	*1.97*	*2.124*	*0.150*	*1.26*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.300*	*0.94*	*Cum*
	Toe Wall D/S Portion	*1*	*3.86*	*0.450*	*0.600*	*1.04*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.600*	*0.150*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.300*	*0.600*	*0.45*	*Cum*
	TOTAL					**8.10**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.16*	*0.450*	*0.450*	*0.47*	*Cum*
		2	*1.16*	*1.062*	*2.040*	*5.03*	*Cum*
		2	*1.16*	*1.824*	*0.700*	*2.97*	*Cum*
	Section 2-2	*2*	*3.00*	*0.450*	*0.450*	*1.22*	*Cum*
		2	*3.00*	*0.606*	*0.520*	*1.89*	*Cum*
		2	*3.00*	*0.912*	*0.700*	*3.83*	*Cum*
	Section 3-3	*2*	*3.70*	*0.450*	*0.450*	*1.50*	*Cum*
		2	*3.70*	*0.546*	*0.320*	*1.29*	*Cum*
		2	*3.70*	*0.792*	*0.600*	*3.52*	*Cum*
	Section 5-5	*2*	*1.93*	*0.450*	*0.450*	*0.78*	*Cum*
		2	*1.93*	*1.062*	*2.040*	*8.35*	*Cum*
		2	*1.93*	*1.824*	*0.550*	*3.87*	*Cum*
	Section 6-6	*2*	*1.23*	*0.450*	*0.450*	*0.50*	*Cum*
		2	*1.23*	*0.546*	*0.320*	*0.43*	*Cum*
		2	*1.23*	*0.792*	*0.550*	*1.07*	*Cum*
	Floor	*1*	*0.75*	*0.600*	*1.200*	*0.54*	*Cum*
		1	*2.04*	*0.600*	*0.550*	*0.67*	*Cum*
		1	*0.15*	*0.600*	*3.775*	*0.34*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*4.32*	*0.600*	*0.700*	*1.81*	*Cum*
		1	*0.26*	*0.600*	*0.300*	*0.05*	*Cum*
		1	*0.20*	*0.600*	*0.500*	*0.06*	*Cum*
		1	*1.05*	*0.600*	*0.600*	*0.38*	*Cum*
		1	*0.05*	*0.600*	*0.625*	*0.02*	*Cum*
		1	*2.70*	*0.600*	*0.550*	*0.89*	*Cum*
		1	*0.81*	*0.600*	*1.450*	*0.71*	*Cum*
	Crest	*1*	*1.03*	*0.600*	*1.695*	*1.05*	*Cum*
	TOTAL					**43.23**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.75*	*0.600*	*0.200*	*0.09*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*11.86*	*0.450*	*0.050*	*0.27*	*Cum*
	On Abutment Top (Right Side)	*1*	*11.86*	*0.450*	*0.050*	*0.27*	*Cum*
	TOTAL					**0.62**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**43.23**	**0.00**	**0.130**	**7850.0**	**1018.05**	**Kg**
	Total Weight in Metric Tonne					**1.02**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.16*		*0.450*	*2.09*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.16*		*2.040*	*9.48*	*Sqm*
		4		*1.062*	*2.040*	*8.67*	*Sqm*
		4	*1.16*		*0.700*	*3.25*	*Sqm*
		4		*1.824*	*0.700*	*5.11*	*Sqm*
	Section 2-2	*4*	*3.00*		*0.450*	*5.40*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.00*		*0.520*	*6.24*	*Sqm*
		4		*0.606*	*0.520*	*1.26*	*Sqm*
		4	*3.00*		*0.700*	*8.40*	*Sqm*
		4		*0.912*	*0.700*	*2.55*	*Sqm*
	Section 3-3	*4*	*3.70*		*0.450*	*6.67*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*3.70*		*0.320*	*4.74*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*3.70*		*0.600*	*8.89*	*Sqm*
		4		*0.792*	*0.600*	*1.90*	*Sqm*
	Section 5-5	*4*	*1.93*		*0.450*	*3.47*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.93*		*2.040*	*15.73*	*Sqm*
		4		*1.062*	*2.040*	*8.67*	*Sqm*
		4	*1.93*		*0.550*	*4.24*	*Sqm*
		4		*1.824*	*0.550*	*4.01*	*Sqm*
	Section 6-6	*4*	*1.23*		*0.450*	*2.21*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.23*		*0.320*	*1.57*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.23*		*0.550*	*2.70*	*Sqm*
		4		*0.792*	*0.550*	*1.74*	*Sqm*
	Floor	*2*	*0.75*		*1.200*	*1.80*	*Sqm*
		2		*0.600*	*1.200*	*1.44*	*Sqm*
		2	*2.04*		*0.550*	*2.24*	*Sqm*
		2		*0.600*	*0.550*	*0.66*	*Sqm*
		2	*0.15*		*3.775*	*1.13*	*Sqm*
		2		*0.600*	*3.775*	*4.53*	*Sqm*
		2	*4.32*		*0.700*	*6.04*	*Sqm*
		2		*0.600*	*0.700*	*0.84*	*Sqm*
		2	*0.26*		*0.300*	*0.15*	*Sqm*
		2		*0.600*	*0.300*	*0.36*	*Sqm*
		2	*0.20*		*0.500*	*0.20*	*Sqm*
		2		*0.600*	*0.500*	*0.60*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.05*		*0.600*	*1.26*	*Sqm*
		2		*0.600*	*0.600*	*0.72*	*Sqm*
		2	*0.05*		*0.625*	*0.06*	*Sqm*
		2		*0.600*	*0.625*	*0.75*	*Sqm*
		2	*2.70*		*0.550*	*2.97*	*Sqm*
		2		*0.600*	*0.550*	*0.66*	*Sqm*
		2	*0.81*		*1.450*	*2.36*	*Sqm*
		2		*0.600*	*1.450*	*1.74*	*Sqm*
	Crest	*2*	*1.03*		*1.695*	*3.50*	*Sqm*
		2		*0.600*	*1.695*	*2.03*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.16*		*0.300*	*2.50*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.86*		*0.600*	*4.63*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.600*	*3.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**173.43**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.727*		*4.32*	*Sqm*
	TOTAL					**4.32**	**Sqm**
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*11.86*	*0.450*		*5.34*	*Sqm*
	On Abutment Top (Right Side)	*1*	*11.86*	*0.450*		*5.34*	*Sqm*
	TOTAL					**10.67**	**Sqm**
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		9.110		9.11	**Cum**
	Abutment						
	Section 1-1	2	*1.31*	*0.662*		*1.737*	*Cum*
	Section 2-2	2	*3.00*	*0.607*		*3.639*	*Cum*
	Section 3-3	2	*3.95*	*0.438*		*3.460*	*Cum*
	Section 5-5	2	*1.97*	*0.662*		*2.610*	*Cum*
	Section 6-6	2	*0.82*	*0.438*		*0.718*	*Cum*
	Toe wall	2	*4.16*	*0.150*	*0.600*	*1.248*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**22.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.067 METER AT CH.1.450 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.17*	*1.702*	*1.630*	*6.511*	*Cum*
	Section 2-2	*2*	*2.50*	*1.062*	*1.630*	*8.655*	*Cum*
	Section 3-3	*2*	*2.20*	*0.942*	*1.430*	*5.927*	*Cum*
	Section 5-5	*2*	*2.03*	*1.852*	*1.630*	*12.241*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*1.430*	*2.209*	*Cum*
	U/S Key Floor	*1*	*0.65*	*0.600*	*0.950*	*0.371*	*Cum*
	U/S Floor	*1*	*2.50*	*0.600*	*1.917*	*2.876*	*Cum*
	D/S Floor	*1*	*2.50*	*0.600*	*0.675*	*1.013*	*Cum*
		1	*2.50*	*0.600*	*0.525*	*0.788*	*Cum*
	D/S Key Floor	*1*	*0.70*	*0.600*	*1.150*	*0.483*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.900*	*2.808*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*1.25*	*0.600*	*0.750*	*1.125*	*Cum*
	TOTAL					**45.01**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
		1	*0.89*	*0.600*	*0.150*	*0.08*	*Cum*
		1	*0.33*	*0.600*	*0.150*	*0.03*	*Cum*
		1	*0.07*	*0.600*	*0.150*	*0.01*	*Cum*
		1	*3.85*	*0.600*	*0.150*	*0.35*	*Cum*
		1	*0.35*	*0.600*	*0.150*	*0.03*	*Cum*
		1	*1.31*	*0.600*	*0.150*	*0.12*	*Cum*
		1	*1.12*	*0.600*	*0.150*	*0.10*	*Cum*
		1	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.17*	*1.702*	*0.150*	*0.60*	*Cum*
	Section 2-2	*2*	*2.50*	*1.062*	*0.150*	*0.80*	*Cum*
	Section 3-3	*2*	*2.20*	*0.942*	*0.150*	*0.62*	*Cum*
	Section 5-5	*2*	*2.03*	*1.852*	*0.150*	*1.13*	*Cum*
	Section 6-6	*2*	*0.82*	*0.942*	*0.150*	*0.23*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.300*	*0.94*	*Cum*
	Toe Wall D/S Portion	*1*	*3.86*	*0.450*	*0.600*	*1.04*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.600*	*0.150*	*0.23*	*Cum*
	Toe Wall for resting Brick Edging	*2*	*1.25*	*0.300*	*0.600*	*0.45*	*Cum*
	TOTAL					**6.84**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.02*	*0.450*	*0.450*	*0.41*	*Cum*
		2	*1.02*	*0.926*	*1.587*	*2.99*	*Cum*
		2	*1.02*	*1.552*	*0.600*	*1.89*	*Cum*
	Section 2-2	*2*	*2.50*	*0.450*	*0.450*	*1.01*	*Cum*
		2	*2.50*	*0.606*	*0.520*	*1.58*	*Cum*
		2	*2.50*	*0.912*	*0.600*	*2.74*	*Cum*
	Section 3-3	*2*	*1.96*	*0.450*	*0.450*	*0.79*	*Cum*
		2	*1.96*	*0.546*	*0.320*	*0.68*	*Cum*
		2	*1.96*	*0.792*	*0.500*	*1.55*	*Cum*
	Section 5-5	*2*	*1.98*	*0.450*	*0.450*	*0.80*	*Cum*
		2	*1.98*	*0.926*	*1.587*	*5.83*	*Cum*
		2	*1.98*	*1.552*	*0.500*	*3.08*	*Cum*
	Section 6-6	*2*	*1.23*	*0.450*	*0.450*	*0.50*	*Cum*
		2	*1.23*	*0.546*	*0.320*	*0.43*	*Cum*
		2	*1.23*	*0.792*	*0.500*	*0.97*	*Cum*
	Floor	*1*	*0.65*	*0.600*	*0.800*	*0.31*	*Cum*
		1	*1.34*	*0.600*	*0.500*	*0.40*	*Cum*
		1	*0.05*	*0.600*	*0.525*	*0.02*	*Cum*
		1	*3.61*	*0.600*	*0.550*	*1.19*	*Cum*
		1	*0.20*	*0.600*	*0.400*	*0.05*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.23*	*0.600*	*0.250*	*0.03*	*Cum*
		1	*2.30*	*0.600*	*0.500*	*0.69*	*Cum*
		1	*0.70*	*0.600*	*1.000*	*0.42*	*Cum*
	Crest	*1*	*0.91*	*0.600*	*1.242*	*0.68*	*Cum*
	TOTAL					**29.04**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.600*	*0.200*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*9.41*	*0.450*	*0.050*	*0.21*	*Cum*
	On Abutment Top (Right Side)	*1*	*9.41*	*0.450*	*0.050*	*0.21*	*Cum*
	TOTAL					**0.51**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Taking Skin reinforcement @0.3% of M-20	**29.04**	**0.003**	**0.087**	**7850.0**	**683.90**	**Kg**
	Total reinforcement (in Kg)					**683.90**	**Kg**
	Total Weight in Metric Tonne					**0.68**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.02*		*0.450*	*1.83*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.02*		*1.587*	*6.46*	*Sqm*
		4		*0.926*	*1.587*	*5.88*	*Sqm*
		4	*1.02*		*0.600*	*2.44*	*Sqm*
		4		*1.552*	*0.600*	*3.72*	*Sqm*
	Section 2-2	*4*	*2.50*		*0.450*	*4.50*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*2.50*		*0.520*	*5.20*	*Sqm*
		4		*0.606*	*0.520*	*1.26*	*Sqm*
		4	*2.50*		*0.600*	*6.00*	*Sqm*
		4		*0.912*	*0.600*	*2.19*	*Sqm*
	Section 3-3	*4*	*1.96*		*0.450*	*3.52*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.96*		*0.320*	*2.50*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.96*		*0.500*	*3.91*	*Sqm*
		4		*0.792*	*0.500*	*1.58*	*Sqm*
	Section 5-5	*4*	*1.98*		*0.450*	*3.57*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.98*		*1.587*	*12.59*	*Sqm*
		4		*0.926*	*1.587*	*5.88*	*Sqm*
		4	*1.98*		*0.500*	*3.97*	*Sqm*
		4		*1.552*	*0.500*	*3.10*	*Sqm*
	Section 6-6	*4*	*1.23*		*0.450*	*2.21*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.23*		*0.320*	*1.57*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.23*		*0.500*	*2.45*	*Sqm*
		4		*0.792*	*0.500*	*1.58*	*Sqm*
	Floor	*2*	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*0.600*	*0.800*	*0.96*	*Sqm*
		2	*1.34*		*0.500*	*1.34*	*Sqm*
		2		*0.600*	*0.500*	*0.60*	*Sqm*
		2	*0.05*		*0.525*	*0.05*	*Sqm*
		2		*0.600*	*0.525*	*0.63*	*Sqm*
		2	*3.61*		*0.550*	*3.97*	*Sqm*
		2		*0.600*	*0.550*	*0.66*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.600*	*0.400*	*0.48*	*Sqm*
		2	*0.23*		*0.250*	*0.12*	*Sqm*
		2		*0.600*	*0.250*	*0.30*	*Sqm*
		2	*2.3*		*0.500*	*2.30*	*Sqm*
		2		*0.6*	*0.500*	*0.60*	*Sqm*
		2	*0.70*		*1.000*	*1.40*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.600*	*1.000*	*1.20*	*Sqm*
	Crest	*2*	*0.91*		*1.242*	*2.25*	*Sqm*
		2		*0.600*	*1.242*	*1.49*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.16*		*0.300*	*2.50*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.86*		*0.600*	*4.63*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.600*	*0.150*	*0.36*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.600*	*3.00*	*Sqm*
		4		*0.300*	*0.600*	*0.72*	*Sqm*
	TOTAL					**125.87**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.727*		*4.32*	*Sqm*
	TOTAL					**4.32**	**Sqm**
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*9.41*	*0.450*		*4.24*	*Sqm*
	On Abutment Top (Right Side)	*1*	*9.41*	*0.450*		*4.24*	*Sqm*
	TOTAL					**8.47**	**Sqm**
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		3.674		3.67	Cum
	Abutment						
	Section 1-1	2	*1.17*	*0.506*		*1.187*	*Cum*
	Section 2-2	2	*2.50*	*0.486*		*2.431*	*Cum*
	Section 3-3	2	*2.20*	*0.423*		*1.861*	*Cum*
	Section 5-5	2	*2.03*	*0.592*		*2.401*	*Cum*
	Section 6-6	2	*0.82*	*0.423*		*0.694*	*Cum*
	Toe wall	2	*4.16*	*0.150*	*0.600*	*1.248*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**13.72**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.1.725 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.794*	*1.749*	*7.524*	*Cum*
	Section 2-2	*2*	*2.76*	*1.432*	*1.749*	*13.825*	*Cum*
	Section 3-3	*2*	*7.79*	*1.312*	*1.549*	*31.655*	*Cum*
	Section 5-5	*2*	*2.01*	*1.944*	*1.749*	*13.658*	*Cum*
	Section 6-6	*2*	*0.47*	*0.942*	*1.549*	*1.366*	*Cum*
	U/S Key Floor	*1*	*0.65*	*0.600*	*0.950*	*0.371*	*Cum*
	U/S Floor	*1*	*2.75*	*0.600*	*1.650*	*2.723*	*Cum*
	D/S Floor	*1*	*2.75*	*0.600*	*0.950*	*1.568*	*Cum*
		1	*6.74*	*0.600*	*0.750*	*3.032*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.600*	*1.250*	*0.544*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.900*	*2.808*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.25*	*0.900*	*0.450*	*0.506*	*Cum*
						79.58	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
		1	*0.89*	*0.600*	*0.150*	*0.08*	*Cum*
		1	*0.48*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*0.14*	*0.600*	*0.150*	*0.01*	*Cum*
		1	*4.15*	*0.600*	*0.150*	*0.37*	*Cum*
		1	*0.42*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*6.54*	*0.600*	*0.150*	*0.59*	*Cum*
		1	*1.23*	*0.600*	*0.150*	*0.11*	*Cum*
		1	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.794*	*0.150*	*0.65*	*Cum*
	Section 2-2	*2*	*2.76*	*1.432*	*0.150*	*1.19*	*Cum*
	Section 3-3	*2*	*7.79*	*1.312*	*0.150*	*3.07*	*Cum*
	Section 5-5	*2*	*2.01*	*1.944*	*0.150*	*1.17*	*Cum*
	Section 6-6	*2*	*0.47*	*0.942*	*0.150*	*0.13*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.300*	*0.94*	*Cum*
	Toe Wall D/S Portion	*1*	*3.86*	*0.450*	*0.600*	*1.04*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.25*	*0.900*	*0.150*	*0.17*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.25*	*0.600*	*0.300*	*0.23*	*Cum*
	TOTAL					**9.92**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.972*	*1.740*	*3.55*	*Cum*
		2	*1.05*	*1.644*	*0.600*	*2.07*	*Cum*
	Section 2-2	*2*	*2.76*	*0.820*	*0.500*	*2.26*	*Cum*
		2	*2.76*	*0.976*	*0.520*	*2.80*	*Cum*
		2	*2.76*	*1.282*	*1.400*	*9.91*	*Cum*
	Section 3-3	*2*	*7.54*	*0.820*	*0.500*	*6.18*	*Cum*
		2	*7.54*	*0.916*	*0.320*	*4.42*	*Cum*
		2	*7.54*	*1.162*	*1.600*	*28.04*	*Cum*
	Section 5-5	*2*	*1.96*	*0.450*	*0.450*	*0.80*	*Cum*
		2	*1.96*	*0.972*	*1.740*	*6.65*	*Cum*
		2	*1.96*	*1.644*	*0.500*	*3.23*	*Cum*
	Section 6-6	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.546*	*0.320*	*0.37*	*Cum*
		2	*1.05*	*0.792*	*0.500*	*0.83*	*Cum*
	Deduction for M 25 grade of concrete	*2*	*0.82*	*8.500*	*0.500*	*-6.97*	*Cum*
	Floor	*1*	*0.65*	*0.600*	*0.800*	*0.31*	*Cum*
		1	*1.49*	*0.600*	*0.500*	*0.45*	*Cum*
		1	*0.10*	*0.600*	*0.550*	*0.03*	*Cum*
		1	*3.91*	*0.600*	*0.600*	*1.41*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.26*	*0.600*	*0.300*	*0.05*	*Cum*
		1	*0.20*	*0.600*	*0.400*	*0.05*	*Cum*
		1	*7.90*	*0.600*	*0.500*	*2.37*	*Cum*
		1	*0.73*	*0.600*	*1.100*	*0.48*	*Cum*
	Crest	*1*	*0.93*	*0.600*	*1.395*	*0.78*	*Cum*
	TOTAL					**70.91**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.600*	*0.200*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*6.82*	*0.450*	*0.050*	*0.15*	*Cum*
	On Abutment Top (Right Side)	*1*	*6.82*	*0.450*	*0.050*	*0.15*	*Cum*
	Slab Bridge	*1*	*1.40*	*8.500*	*0.350*	*4.17*	*Cum*
	Wearing coat	*1*	*1.40*	*7.500*	*0.070*	*0.74*	*Cum*
	Dirt wall	*2*	*0.40*	*8.500*	*0.300*	*2.04*	*Cum*
		2	*0.82*	*8.500*	*0.500*	*6.97*	*Cum*
	TOTAL					**14.30**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*36*	*1.86*		*1.578*	*105.7*	*Kg*
a2	*10*	*7*	*6.90*		*0.616*	*29.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*24*	*1.78*		*0.616*	*26.3*	*Kg*
a5	*10*	*5*	*6.85*		*0.616*	*21.1*	*Kg*
x1	*12*	*22*	*2.50*		*0.888*	*48.8*	*Kg*
x2	*16*	*22*	*1.27*		*1.578*	*43.9*	*Kg*
x3	*10*	*24*	*1.30*		*0.616*	*19.2*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**70.91**	**0.003**	**0.213**	**7850.0**	**1669.9**	**Kg**
	Total Reinforcement Steel (in kg)					*1972.7*	*Kg*
	Total Weight in Metric Tonne					**1.97**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.450*	*1.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*1.740*	*7.30*	*Sqm*
		4		*0.972*	*1.740*	*6.77*	*Sqm*
		4	*1.05*		*0.600*	*2.52*	*Sqm*
		4		*1.644*	*0.600*	*3.95*	*Sqm*
	Section 2-2	*4*	*2.76*		*0.500*	*5.52*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*2.76*		*0.520*	*5.74*	*Sqm*
		4		*0.976*	*0.520*	*2.03*	*Sqm*
		4	*2.76*		*1.400*	*15.46*	*Sqm*
		4		*1.282*	*1.400*	*7.18*	*Sqm*
	Section 3-3	*4*	*7.54*		*0.500*	*15.08*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*7.54*		*0.320*	*9.65*	*Sqm*
		4		*0.916*	*0.320*	*1.17*	*Sqm*
		4	*7.54*		*1.600*	*48.27*	*Sqm*
		4		*1.162*	*1.600*	*7.44*	*Sqm*
	Section 5-5	*4*	*1.96*		*0.450*	*3.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.96*		*1.740*	*13.67*	*Sqm*
		4		*0.972*	*1.740*	*6.77*	*Sqm*
		4	*1.96*		*0.500*	*3.93*	*Sqm*
		4		*1.644*	*0.500*	*3.29*	*Sqm*
	Section 6-6	*4*	*1.05*		*0.450*	*1.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*0.320*	*1.34*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.05*		*0.500*	*2.10*	*Sqm*
		4		*0.792*	*0.500*	*1.58*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Floor	*2*	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*0.600*	*0.800*	*0.96*	*Sqm*
		2	*3.91*		*0.600*	*4.70*	*Sqm*
		2		*0.600*	*0.600*	*0.72*	*Sqm*
		2	*0.26*		*0.300*	*0.15*	*Sqm*
		2		*0.600*	*0.300*	*0.36*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.600*	*0.400*	*0.48*	*Sqm*
		2	*7.90*		*0.500*	*7.90*	*Sqm*
		2		*0.600*	*0.500*	*0.60*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.600*	*1.100*	*1.32*	*Sqm*
	Crest	*2*	*0.93*		*1.395*	*2.60*	*Sqm*
		2		*0.600*	*1.395*	*1.67*	*Sqm*
	Slab	*2*	*1.40*		*0.35*	*0.98*	*Sqm*
		2		*8.50*	*0.35*	*5.95*	*Sqm*
		1	*1.40*	*8.50*		*11.90*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.16*		*0.300*	*2.50*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.86*		*0.600*	*4.63*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.900*	*0.150*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.300*	*1.50*	*Sqm*
		4		*0.600*	*0.300*	*0.72*	*Sqm*
	TOTAL					**239.19**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.727*		*4.32*	*Sqm*
	TOTAL					**4.32**	**Sqm**
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*6.82*	*0.450*		*3.07*	*Sqm*
	On Abutment Top (Right Side)	*1*	*6.82*	*0.450*		*3.07*	*Sqm*
	TOTAL					**6.14**	**Sqm**
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.288		5.29	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*1.660*		*3.981*	*Cum*
	Section 2-2	2	*2.76*	*0.751*		*4.143*	*Cum*
	Section 3-3	2	*7.79*	*0.602*		*9.381*	*Cum*
	Section 5-5	2	*2.01*	*0.674*		*2.707*	*Cum*
	Section 6-6	2	*0.47*	*0.437*		*0.409*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.16*	*0.150*	*0.600*	*1.248*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**27.38**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	SHARDA TYPE FALL OF HEIGHT 1.220 METER AT CH.0.875 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.20*	*1.794*	*1.900*	*8.174*	*Cum*
	Section 2-2	*2*	*2.75*	*1.432*	*1.900*	*14.964*	*Cum*
	Section 3-3	*2*	*4.55*	*1.312*	*1.700*	*20.297*	*Cum*
	Section 5-5	*2*	*2.01*	*1.944*	*1.900*	*14.837*	*Cum*
	Section 6-6	*2*	*0.47*	*0.942*	*1.700*	*1.499*	*Cum*
	U/S Key Floor	*1*	*0.65*	*0.600*	*0.950*	*0.371*	*Cum*
	U/S Floor	*1*	*2.75*	*0.600*	*1.357*	*2.239*	*Cum*
	D/S Floor	*1*	*2.75*	*0.600*	*0.950*	*1.568*	*Cum*
		1	*3.49*	*0.600*	*0.750*	*1.570*	*Cum*
	D/S Key Floor	*1*	*0.73*	*0.600*	*1.250*	*0.544*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.900*	*2.808*	*Cum*
	Boulder Pitching (D/S Portion)	*1*	*1.25*	*0.900*	*0.450*	*0.506*	*Cum*
						69.38	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor	*1*	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
		1	*0.89*	*0.600*	*0.150*	*0.08*	*Cum*
		1	*0.48*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*0.14*	*0.600*	*0.150*	*0.01*	*Cum*
		1	*4.15*	*0.600*	*0.150*	*0.37*	*Cum*
		1	*0.42*	*0.600*	*0.150*	*0.04*	*Cum*
		1	*3.29*	*0.600*	*0.150*	*0.30*	*Cum*
		1	*1.23*	*0.600*	*0.150*	*0.11*	*Cum*
		1	*0.54*	*0.600*	*0.150*	*0.05*	*Cum*
	PCC Below Abutment						
	Section 1-1	*2*	*1.20*	*1.794*	*0.150*	*0.65*	*Cum*
	Section 2-2	*2*	*2.75*	*1.432*	*0.150*	*1.18*	*Cum*
	Section 3-3	*2*	*4.55*	*1.312*	*0.150*	*1.79*	*Cum*
	Section 5-5	*2*	*2.01*	*1.944*	*0.150*	*1.17*	*Cum*
	Section 6-6	*2*	*0.47*	*0.942*	*0.150*	*0.13*	*Cum*
	Toe Wall D/S Portion	*1*	*4.16*	*0.750*	*0.300*	*0.94*	*Cum*
	Toe Wall D/S Portion	*1*	*3.86*	*0.450*	*0.600*	*1.04*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.25*	*0.900*	*0.150*	*0.17*	*Cum*
	Toe Wall for resting Brick Edging	*1*	*1.25*	*0.600*	*0.300*	*0.23*	*Cum*
	TOTAL					**8.34**	**Cum**
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment						
	Section 1-1	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.972*	*1.740*	*3.55*	*Cum*
		2	*1.05*	*1.644*	*0.600*	*2.07*	*Cum*
	Section 2-2	*2*	*2.75*	*0.820*	*0.500*	*2.26*	*Cum*
		2	*2.75*	*0.976*	*0.520*	*2.79*	*Cum*
		2	*2.75*	*1.282*	*1.400*	*9.87*	*Cum*
	Section 3-3	*2*	*4.30*	*0.820*	*0.500*	*3.53*	*Cum*
		2	*4.30*	*0.916*	*0.320*	*2.52*	*Cum*
		2	*4.30*	*1.162*	*1.600*	*16.00*	*Cum*
	Section 5-5	*2*	*1.96*	*0.450*	*0.450*	*0.80*	*Cum*
		2	*1.96*	*0.972*	*1.740*	*6.65*	*Cum*
		2	*1.96*	*1.644*	*0.500*	*3.23*	*Cum*
	Section 6-6	*2*	*1.05*	*0.450*	*0.450*	*0.42*	*Cum*
		2	*1.05*	*0.546*	*0.320*	*0.37*	*Cum*
		2	*1.05*	*0.792*	*0.500*	*0.83*	*Cum*
	Deduction for M 25 grade of concrete	*2*	*0.82*	*5.250*	*0.500*	*-4.31*	*Cum*
	Floor	*1*	*0.65*	*0.600*	*0.800*	*0.31*	*Cum*
		1	*1.49*	*0.600*	*0.500*	*0.45*	*Cum*
		1	*0.10*	*0.600*	*0.550*	*0.03*	*Cum*
		1	*3.92*	*0.600*	*0.600*	*1.41*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		1	*0.26*	*0.600*	*0.300*	*0.05*	*Cum*
		1	*0.20*	*0.600*	*0.400*	*0.05*	*Cum*
		1	*4.65*	*0.600*	*0.500*	*1.40*	*Cum*
		1	*0.73*	*0.600*	*1.100*	*0.48*	*Cum*
	Crest	*1*	*0.93*	*0.600*	*1.395*	*0.78*	*Cum*
	TOTAL					**55.95**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Over Crest	*1*	*0.70*	*0.600*	*0.200*	*0.08*	*Cum*
	Coping over Abutment Top						
	On Abutment Top (Left Side)	*1*	*8.39*	*0.450*	*0.050*	*0.19*	*Cum*
	On Abutment Top (Right Side)	*1*	*8.39*	*0.450*	*0.050*	*0.19*	*Cum*
	Slab Bridge	*1*	*1.40*	*5.250*	*0.325*	*2.39*	*Cum*
	Wearing coat	*1*	*1.40*	*4.250*	*0.070*	*0.42*	*Cum*
	Dirt wall	*2*	*0.40*	*5.250*	*0.300*	*1.26*	*Cum*
		2	*0.82*	*5.250*	*0.500*	*4.31*	*Cum*
	TOTAL					**8.83**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	Quantity	Percent		Density		
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
a1	*16*	*31*	*1.86*		*1.578*	*91.0*	*Kg*
a2	*10*	*7*	*5.90*		*0.616*	*25.5*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*1.78*		*0.616*	*20.8*	*Kg*
a5	*10*	*5*	*5.85*		*0.616*	*18.0*	*Kg*
x1	*12*	*22*	*2.50*		*0.888*	*48.8*	*Kg*
x2	*16*	*22*	*1.27*		*1.578*	*43.9*	*Kg*
x3	*10*	*24*	*1.30*		*0.616*	*19.2*	*Kg*
	Taking Skin reinforcement @0.3% of M-20	**55.95**	**0.003**	**0.168**	**7850.0**	**1317.7**	**Kg**
	Total Reinforcement Steel (in kg)					*1591.7*	*Kg*
	Total Weight in Metric Tonne					**1.59**	**MT**
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment						
	Section 1-1	*4*	*1.05*		*0.450*	*1.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*1.740*	*7.30*	*Sqm*
		4		*0.972*	*1.740*	*6.77*	*Sqm*
		4	*1.05*		*0.600*	*2.52*	*Sqm*
		4		*1.644*	*0.600*	*3.95*	*Sqm*
	Section 2-2	*4*	*2.75*		*0.500*	*5.50*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*2.75*		*0.520*	*5.72*	*Sqm*
		4		*0.976*	*0.520*	*2.03*	*Sqm*
		4	*2.75*		*1.400*	*15.40*	*Sqm*
		4		*1.282*	*1.400*	*7.18*	*Sqm*
	Section 3-3	*4*	*4.30*		*0.500*	*8.61*	*Sqm*
		4		*0.820*	*0.500*	*1.64*	*Sqm*
		4	*4.30*		*0.320*	*5.51*	*Sqm*
		4		*0.916*	*0.320*	*1.17*	*Sqm*
		4	*4.30*		*1.600*	*27.55*	*Sqm*
		4		*1.162*	*1.600*	*7.44*	*Sqm*
	Section 5-5	*4*	*1.96*		*0.450*	*3.54*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.96*		*1.740*	*13.67*	*Sqm*
		4		*0.972*	*1.740*	*6.77*	*Sqm*
		4	*1.96*		*0.500*	*3.93*	*Sqm*
		4		*1.644*	*0.500*	*3.29*	*Sqm*
	Section 6-6	*4*	*1.05*		*0.450*	*1.89*	*Sqm*
		4		*0.450*	*0.450*	*0.81*	*Sqm*
		4	*1.05*		*0.320*	*1.34*	*Sqm*
		4		*0.546*	*0.320*	*0.70*	*Sqm*
		4	*1.05*		*0.500*	*2.10*	*Sqm*
		4		*0.792*	*0.500*	*1.58*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Floor	*2*	*0.65*		*0.800*	*1.04*	*Sqm*
		2		*0.600*	*0.800*	*0.96*	*Sqm*
		2	*3.92*		*0.600*	*4.70*	*Sqm*
		2		*0.600*	*0.600*	*0.72*	*Sqm*
		2	*0.26*		*0.300*	*0.15*	*Sqm*
		2		*0.600*	*0.300*	*0.36*	*Sqm*
		2	*0.20*		*0.400*	*0.16*	*Sqm*
		2		*0.600*	*0.400*	*0.48*	*Sqm*
		2	*4.65*		*0.500*	*4.65*	*Sqm*
		2		*0.600*	*0.500*	*0.60*	*Sqm*
		2	*0.73*		*1.100*	*1.60*	*Sqm*
		2		*0.600*	*1.100*	*1.32*	*Sqm*
	Crest	*2*	*0.93*		*1.395*	*2.60*	*Sqm*
		2		*0.600*	*1.395*	*1.67*	*Sqm*
	Slab	*2*	*1.40*		*0.33*	*0.91*	*Sqm*
		2		*5.25*	*0.33*	*3.41*	*Sqm*
		1	*1.40*	*5.25*		*7.35*	*Sqm*
	Toe Wall D/S Portion	*2*	*4.16*		*0.300*	*2.50*	*Sqm*
		2		*0.750*	*0.300*	*0.45*	*Sqm*
	Toe Wall D/S Portion	*2*	*3.86*		*0.600*	*4.63*	*Sqm*
		2		*0.450*	*0.600*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.150*	*0.75*	*Sqm*
		4		*0.900*	*0.150*	*0.54*	*Sqm*
	Toe Wall for resting Brick Edging	*4*	*1.25*		*0.300*	*1.50*	*Sqm*
		4		*0.600*	*0.300*	*0.72*	*Sqm*
	TOTAL					**197.35**	**Sqm**
7	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes	*2*	*1.25*	*1.727*		*4.32*	*Sqm*
	TOTAL					**4.32**	**Sqm**
8	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	On Abutment Top (Left Side)	*1*	*8.39*	*0.450*		*3.77*	*Sqm*
	On Abutment Top (Right Side)	*1*	*8.39*	*0.450*		*3.77*	*Sqm*
	TOTAL					**7.55**	**Sqm**
9	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.						
		1	2.00			**2.00**	**No.**
10	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Under U/S floor	1		5.288		5.29	**Cum**
	Abutment						
	Section 1-1	2	*1.20*	*0.835*		*2.002*	*Cum*
	Section 2-2	2	*2.75*	*0.038*		*0.206*	*Cum*
	Section 3-3	2	*4.55*	*0.098*		*0.887*	*Cum*
	Section 5-5	2	*2.01*	*0.817*		*3.281*	*Cum*
	Section 6-6	2	*0.47*	*0.282*		*0.264*	*Cum*
	D/S protection	2					
	Toe wall	2	*4.16*	*0.150*	*0.600*	*1.248*	*Cum*
		2	*1.25*	0.150	*0.600*	*0.225*	*Cum*
	TOTAL					**13.40**	**Cum**

Cross Drainage Works
(Total Cost – Rs ₹ 3,43,76,288.08)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND									
S. No.	**Ref**	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF MAHIMAPUR SUB DY									
CROSS DRAINAGE AT CH.1.463 KM									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	567.22	Cum	**195.20**	110721.29			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	81.24	Cum	**6381.70**	518464.97	26.32	36.56	73.12
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	78.48	Cum	**6914.20**	542597.67	32.37	33.74	67.49
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	433.95	Sqm	**578.60**	251085.56			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	35.00	RM	**6002.82**	210098.70			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	35.00	RM	**1713.33**	59966.57			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.54	MT	**73574.90**	113311.85			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	138.43	Cum	**149.30**	20667.49			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	70.30	Cum	**1075.00**	75576.50			
		Coarse Aggregates (100 Km lead)	140.61	Cum	**1398.00**	196569.19			
		Cement (30 km lead)	58.69	MT	**742.00**	43550.83			
		Steel (30 Km lead)	1.54	MT	**742.00**	1142.75			
		Hume Pipe (30 Km)	35.00	RM	**1470.00**	51450.00			
TOTAL (In Rs.)						**₹ 20,84,482.07**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	70.30	Cum	**584.64**	41102.36	4110.24		
		Coarse Aggregate	140.61	Cum	**944.26**	132769.97	13277.00		
		Total					**17387.23**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
CROSS DRAINAGE AT CH.5.319 KM									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	221.61	Cum	**195.20**	43259.04			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	71.96	Cum	**6381.70**	459200.07	23.31	32.38	64.76
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	72.96	Cum	**6914.20**	504457.60	30.10	31.37	62.75
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	406.40	Sqm	**578.60**	235141.84			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	30.00	RM	**6002.82**	180084.60			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.43	MT	**73574.90**	105346.98			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	91.72	Cum	**149.30**	13693.46			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	63.75	Cum	**1075.00**	68534.20			
		Coarse Aggregates (100 Km lead)	127.51	Cum	**1398.00**	178252.66			
		Cement (30 km lead)	53.41	MT	**742.00**	39629.86			
		Steel (30 Km lead)	1.43	MT	**742.00**	1062.42			
		Hume Pipe (30 Km)	30.00	RM	**1470.00**	44100.00			
TOTAL (In Rs.)						**₹ 18,80,903.60**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	63.75	Cum	**584.64**	37272.40	3727.24		
		Coarse Aggregate	127.51	Cum	**944.26**	120398.32	12039.83		
		Total					**15767.07**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 9.028 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	261.58	Cum	**195.20**	51059.87			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	46.14	Cum	**6381.70**	294447.76	14.95	20.76	41.53
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.87	Cum	**6914.20**	331011.93	19.75	20.59	41.17
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	320.75	Sqm	**578.60**	185584.60			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	15.00	RM	**6002.82**	90042.30			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**1713.33**	25699.96			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.94	MT	**73574.90**	69125.94			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.52	Cum	**149.30**	6050.12			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	41.35	Cum	**1075.00**	44449.79			
		Coarse Aggregates (100 Km lead)	82.70	Cum	**1398.00**	115610.80			
		Cement (30 km lead)	34.70	MT	**742.00**	25745.38			
		Steel (30 Km lead)	0.94	MT	**742.00**	697.13			
		Hume Pipe (30 Km)	15.00	RM	**1470.00**	22050.00			
TOTAL (In Rs.)						**₹ 12,10,515.71**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	41.35	Cum	**584.64**	24174.07	2417.41		
		Coarse Aggregate	82.70	Cum	**944.26**	78087.74	7808.77		
		Total					**10226.18**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 10.698 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	236.89	Cum	**195.20**	46241.07			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	46.14	Cum	**6381.70**	294447.76	14.95	20.76	41.53
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	51.49	Cum	**6914.20**	356001.42	21.24	22.14	44.28
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	322.07	Sqm	**578.60**	186349.09			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.01	MT	**73574.90**	74344.55			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.54	Cum	**149.30**	6052.56			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	42.90	Cum	**1075.00**	46120.47			
		Coarse Aggregates (100 Km lead)	85.81	Cum	**1398.00**	119956.11			
		Cement (30 km lead)	36.19	MT	**742.00**	26851.61			
		Steel (30 Km lead)	1.01	MT	**742.00**	749.76			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 12,25,700.20**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	42.90	Cum	**584.64**	25082.67	2508.27		
		Coarse Aggregate	85.81	Cum	**944.26**	81022.72	8102.27		
		Total					**10610.54**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST DEOKULI MINOR									
Cross Drainage at Ch. 0.250 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	441.97	Cum	**195.20**	86273.29			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	54.54	Cum	**6381.70**	348044.55	17.67	24.54	49.08
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	67.86	Cum	**6914.20**	469173.02	27.99	29.18	58.36
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	413.01	Sqm	**578.60**	238968.85			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	30.00	RM	**6002.82**	180084.60			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.33	MT	**73574.90**	97978.42			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	123.14	Cum	**149.30**	18384.36			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	53.72	Cum	**1075.00**	57749.35			
		Coarse Aggregates (100 Km lead)	107.44	Cum	**1398.00**	150202.04			
		Cement (30 km lead)	45.66	MT	**742.00**	33880.51			
		Steel (30 Km lead)	1.33	MT	**742.00**	988.11			
		Hume Pipe (30 Km)	30.00	RM	**1470.00**	44100.00			
TOTAL (In Rs.)						**₹ 16,90,953.72**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	53.72	Cum	**584.64**	31407.05	3140.71		
		Coarse Aggregate	107.44	Cum	**944.26**	101451.91	10145.19		
		Total					**13285.90**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 1.210 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	445.32	Cum	**195.20**	86926.45			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	54.54	Cum	**6381.70**	348044.55	17.67	24.54	49.08
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	67.86	Cum	**6914.20**	469173.02	27.99	29.18	58.36
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	413.01	Sqm	**578.60**	238968.85			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	30.00	RM	**6002.82**	180084.60			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.33	MT	**73574.90**	97978.42			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	123.29	Cum	**149.30**	18407.23			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	53.72	Cum	**1075.00**	57749.35			
		Coarse Aggregates (100 Km lead)	107.44	Cum	**1398.00**	150202.04			
		Cement (30 km lead)	45.66	MT	**742.00**	33880.51			
		Steel (30 Km lead)	1.33	MT	**742.00**	988.11			
		Hume Pipe (30 Km)	30.00	RM	**1470.00**	44100.00			
TOTAL (In Rs.)						**₹ 16,90,976.59**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	53.72	Cum	**584.64**	31407.05	3140.71		
		Coarse Aggregate	107.44	Cum	**944.26**	101451.91	10145.19		
		Total					**13285.90**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 3.410 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	270.94	Cum	**195.20**	52886.58			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	45.74	Cum	**6381.70**	291883.49	14.82	20.58	41.16
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	59.17	Cum	**6914.20**	409144.60	24.41	25.45	50.89
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	322.16	Sqm	**578.60**	186398.95			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.16	MT	**73574.90**	85442.56			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	39.52	Cum	**149.30**	5900.33			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	46.03	Cum	**1075.00**	49478.98			
		Coarse Aggregates (100 Km lead)	92.05	Cum	**1398.00**	128691.38			
		Cement (30 km lead)	39.23	MT	**742.00**	29107.53			
		Steel (30 Km lead)	1.16	MT	**742.00**	861.68			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 13,01,736.40**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	46.03	Cum	**584.64**	26909.20	2690.92		
		Coarse Aggregate	92.05	Cum	**944.26**	86922.84	8692.28		
		Total					**11383.20**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 4.080 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	385.18	Cum	**195.20**	75187.24			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	63.18	Cum	**6381.70**	403173.96	20.47	28.43	56.86
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	68.63	Cum	**6914.20**	474534.60	28.31	29.51	59.02
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	409.13	Sqm	**578.60**	236719.77			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	35.00	RM	**6002.82**	210098.70			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	35.00	RM	**1713.33**	59966.57			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.35	MT	**73574.90**	99098.09			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	106.30	Cum	**149.30**	15870.49			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	57.94	Cum	**1075.00**	62286.76			
		Coarse Aggregates (100 Km lead)	115.88	Cum	**1398.00**	162003.52			
		Cement (30 km lead)	48.78	MT	**742.00**	36194.66			
		Steel (30 Km lead)	1.35	MT	**742.00**	999.40			
		Hume Pipe (30 Km)	35.00	RM	**1470.00**	51450.00			
TOTAL (In Rs.)						**₹ 18,12,396.51**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	57.94	Cum	**584.64**	33874.73	3387.47		
		Coarse Aggregate	115.88	Cum	**944.26**	109423.06	10942.31		
		Total					**14329.78**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CROSS DRAINAGE WORKS OF THAKUR BIGHA MINOR									
Cross Drainage at Ch. 0.244 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	517.20	Cum	**195.20**	100958.37			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	66.04	Cum	**6381.70**	421475.36	21.40	29.72	59.44
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	81.15	Cum	**6914.20**	561103.44	33.48	34.90	69.79
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	384.00	Sqm	**578.60**	222184.75			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	30.00	RM	**6002.82**	180084.60			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.59	MT	**73574.90**	117176.45			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	119.54	Cum	**149.30**	17847.09			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	64.62	Cum	**1075.00**	69461.63			
		Coarse Aggregates (100 Km lead)	129.23	Cum	**1398.00**	180664.85			
		Cement (30 km lead)	54.87	MT	**742.00**	40716.29			
		Steel (30 Km lead)	1.59	MT	**742.00**	1181.72			
		Hume Pipe (30 Km)	30.00	RM	**1470.00**	44100.00			
TOTAL (In Rs.)						**₹ 19,07,396.10**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	64.62	Cum	**584.64**	37776.79	3777.68		
		Coarse Aggregate	129.23	Cum	**944.26**	122027.60	12202.76		
		Total					**15980.44**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 1.798 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	456.43	Cum	**195.20**	89095.64			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	66.10	Cum	**6381.70**	421843.56	21.42	29.75	59.49
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	80.52	Cum	**6914.20**	556741.04	33.22	34.62	69.25
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	384.00	Sqm	**578.60**	222184.75			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	30.00	RM	**6002.82**	180084.60			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.58	MT	**73574.90**	116265.44			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	126.71	Cum	**149.30**	18918.11			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	64.37	Cum	**1075.00**	69197.89			
		Coarse Aggregates (100 Km lead)	128.74	Cum	**1398.00**	179978.89			
		Cement (30 km lead)	54.63	MT	**742.00**	40537.05			
		Steel (30 Km lead)	1.58	MT	**742.00**	1172.53			
		Hume Pipe (30 Km)	30.00	RM	**1470.00**	44100.00			
TOTAL (In Rs.)						**₹ 19,02,423.79**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	64.37	Cum	**584.64**	37633.35	3763.34		
		Coarse Aggregate	128.74	Cum	**944.26**	121564.28	12156.43		
		Total					**15919.76**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 2.164 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	261.09	Cum	**195.20**	50964.95			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	42.71	Cum	**6381.70**	272548.24	13.84	19.22	38.44
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	47.57	Cum	**6914.20**	328936.94	19.62	20.46	40.91
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	313.15	Sqm	**578.60**	181186.63			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.93	MT	**73574.90**	68692.62			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.40	Cum	**149.30**	6032.05			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	39.68	Cum	**1075.00**	42651.02			
		Coarse Aggregates (100 Km lead)	79.35	Cum	**1398.00**	110932.33			
		Cement (30 km lead)	33.46	MT	**742.00**	24828.54			
		Steel (30 Km lead)	0.93	MT	**742.00**	692.76			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 11,51,328.01**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	39.68	Cum	**584.64**	23195.81	2319.58		
		Coarse Aggregate	79.35	Cum	**944.26**	74927.73	7492.77		
		Total					**9812.35**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 3.324 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	392.63	Cum	**195.20**	76640.75			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	57.16	Cum	**6381.70**	364788.57	18.52	25.72	51.45
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	57.05	Cum	**6914.20**	394430.00	23.53	24.53	49.06
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	392.36	Sqm	**578.60**	227019.24			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.12	MT	**73574.90**	82369.67			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	81.90	Cum	**149.30**	12227.72			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	50.25	Cum	**1075.00**	54021.64			
		Coarse Aggregates (100 Km lead)	100.51	Cum	**1398.00**	140506.51			
		Cement (30 km lead)	42.05	MT	**742.00**	31202.59			
		Steel (30 Km lead)	1.12	MT	**742.00**	830.69			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 14,22,223.51**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	50.25	Cum	**584.64**	29379.73	2937.97		
		Coarse Aggregate	100.51	Cum	**944.26**	94903.20	9490.32		
		Total					**12428.29**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 3.536 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	406.18	Cum	**195.20**	79286.32			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	57.16	Cum	**6381.70**	364788.57	18.52	25.72	51.45
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	63.84	Cum	**6914.20**	441418.10	26.33	27.45	54.90
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	403.72	Sqm	**578.60**	233592.09			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	25.00	RM	**6002.82**	150070.50			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	25.00	RM	**1713.33**	42833.27			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.25	MT	**73574.90**	92182.30			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	81.90	Cum	**149.30**	12227.72			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	53.17	Cum	**1075.00**	57163.03			
		Coarse Aggregates (100 Km lead)	106.35	Cum	**1398.00**	148677.06			
		Cement (30 km lead)	44.86	MT	**742.00**	33282.64			
		Steel (30 Km lead)	1.25	MT	**742.00**	929.65			
		Hume Pipe (30 Km)	25.00	RM	**1470.00**	36750.00			
TOTAL (In Rs.)						**₹ 16,13,914.94**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	53.17	Cum	**584.64**	31088.18	3108.82		
		Coarse Aggregate	106.35	Cum	**944.26**	100421.89	10042.19		
		Total					**13151.01**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 4.086 KM									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	275.48	Cum	**195.20**	53773.62			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	43.62	Cum	**6381.70**	278350.96	14.13	19.63	39.26
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	58.61	Cum	**6914.20**	405266.28	24.18	25.20	50.41
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	370.64	Sqm	**578.60**	214454.77			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.15	MT	**73574.90**	84632.64			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	54.24	Cum	**149.30**	8097.93			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	44.83	Cum	**1075.00**	48193.90			
		Coarse Aggregates (100 Km lead)	89.66	Cum	**1398.00**	125348.96			
		Cement (30 km lead)	38.31	MT	**742.00**	28426.05			
		Steel (30 Km lead)	1.15	MT	**742.00**	853.52			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 13,08,451.89**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	44.83	Cum	**584.64**	26210.31	2621.03		
		Coarse Aggregate	89.66	Cum	**944.26**	84665.24	8466.52		
		Total					**11087.55**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 4.267 KM									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	327.01	Cum	**195.20**	63832.64			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	43.62	Cum	**6381.70**	278350.96	14.13	19.63	39.26
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	90.34	Cum	**6914.20**	624635.83	37.27	38.85	77.69
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	474.13	Sqm	**578.60**	274329.14			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.77	MT	**73574.90**	130444.06			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	55.63	Cum	**149.30**	8305.04			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	58.47	Cum	**1075.00**	62859.88			
		Coarse Aggregates (100 Km lead)	116.95	Cum	**1398.00**	163494.17			
		Cement (30 km lead)	51.40	MT	**742.00**	38137.01			
		Steel (30 Km lead)	1.77	MT	**742.00**	1315.52			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 16,96,698.50**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	58.47	Cum	**584.64**	34186.42	3418.64		
		Coarse Aggregate	116.95	Cum	**944.26**	110429.90	11042.99		
		Total					**14461.63**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST CD WORK DADHPA SUB DY									
Cross Drainage at Ch. 0.130 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	368.49	Cum	**195.20**	71928.99			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	43.48	Cum	**6381.70**	277489.43	14.09	19.57	39.13
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	67.01	Cum	**6914.20**	463334.16	27.64	28.82	57.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	392.04	Sqm	**578.60**	226835.15			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.32	MT	**73574.90**	96759.08			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	66.32	Cum	**149.30**	9901.00			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	48.38	Cum	**1075.00**	52010.73			
		Coarse Aggregates (100 Km lead)	96.76	Cum	**1398.00**	135276.27			
		Cement (30 km lead)	41.73	MT	**742.00**	30964.12			
		Steel (30 Km lead)	1.32	MT	**742.00**	975.81			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 14,08,372.62**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	48.38	Cum	**584.64**	28286.09	2828.61		
		Coarse Aggregate	96.76	Cum	**944.26**	91370.51	9137.05		
		Total					**11965.66**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 5.580 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	274.26	Cum	**195.20**	53535.13			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	43.48	Cum	**6381.70**	277489.43	14.09	19.57	39.13
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	67.01	Cum	**6914.20**	463334.16	27.64	28.82	57.63
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	392.04	Sqm	**578.60**	226835.15			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.32	MT	**73574.90**	96759.08			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	40.45	Cum	**149.30**	6039.02			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	48.38	Cum	**1075.00**	52010.73			
		Coarse Aggregates (100 Km lead)	96.76	Cum	**1398.00**	135276.27			
		Cement (30 km lead)	41.73	MT	**742.00**	30964.12			
		Steel (30 Km lead)	1.32	MT	**742.00**	975.81			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 14,04,510.65**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	48.38	Cum	**584.64**	28286.09	2828.61		
		Coarse Aggregate	96.76	Cum	**944.26**	91370.51	9137.05		
		Total					**11965.66**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST CD WORK GURARU SUB DY									
Cross Drainage at Ch. 1.640 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	274.07	Cum	**195.20**	53498.07			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	55.72	Cum	**6381.70**	355572.27	18.05	25.07	50.15
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	77.34	Cum	**6914.20**	534747.07	31.90	33.26	66.51
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	375.78	Sqm	**578.60**	217425.65			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	15.00	RM	**6002.82**	90042.30			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	15.00	RM	**1713.33**	25699.96			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.52	MT	**73574.90**	111672.39			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	43.01	Cum	**149.30**	6421.88			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	58.33	Cum	**1075.00**	62703.94			
		Coarse Aggregates (100 Km lead)	116.66	Cum	**1398.00**	163088.57			
		Cement (30 km lead)	49.96	MT	**742.00**	37066.90			
		Steel (30 Km lead)	1.52	MT	**742.00**	1126.21			
		Hume Pipe (30 Km)	15.00	RM	**1470.00**	22050.00			
TOTAL (In Rs.)						**₹ 16,27,617.14**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	58.33	Cum	**584.64**	34101.61	3410.16		
		Coarse Aggregate	116.66	Cum	**944.26**	110155.95	11015.59		
		Total					**14425.76**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 2.400 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	310.47	Cum	**195.20**	60603.73			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	63.12	Cum	**6381.70**	402831.80	20.45	28.41	56.81
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	56.82	Cum	**6914.20**	392865.40	23.44	24.43	48.87
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	387.37	Sqm	**578.60**	224130.00			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	30.00	RM	**6002.82**	180084.60			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	30.00	RM	**1713.33**	51399.92			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.12	MT	**73574.90**	82042.93			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	51.83	Cum	**149.30**	7738.46			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	52.84	Cum	**1075.00**	56800.81			
		Coarse Aggregates (100 Km lead)	105.68	Cum	**1398.00**	147734.95			
		Cement (30 km lead)	43.89	MT	**742.00**	32566.47			
		Steel (30 Km lead)	1.12	MT	**742.00**	827.40			
		Hume Pipe (30 Km)	30.00	RM	**1470.00**	44100.00			
TOTAL (In Rs.)						**₹ 16,23,122.75**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	52.84	Cum	**584.64**	30891.19	3089.12		
		Coarse Aggregate	105.68	Cum	**944.26**	99785.56	9978.56		
		Total					**13067.67**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 2.804 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	40.36	Cum	**195.20**	7878.21			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	42.71	Cum	**6381.70**	272548.24	13.84	19.22	38.44
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	87.43	Cum	**6914.20**	604489.18	36.06	37.59	75.19
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	371.98	Sqm	**578.60**	215228.50			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.72	MT	**73574.90**	126236.79			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	282.84	Cum	**149.30**	42228.09			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	56.81	Cum	**1075.00**	61073.11			
		Coarse Aggregates (100 Km lead)	113.62	Cum	**1398.00**	158846.91			
		Cement (30 km lead)	49.90	MT	**742.00**	37026.57			
		Steel (30 Km lead)	1.72	MT	**742.00**	1273.09			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 16,33,777.38**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	56.81	Cum	**584.64**	33214.68	3321.47		
		Coarse Aggregate	113.62	Cum	**944.26**	107290.97	10729.10		
		Total					**14050.57**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
Cross Drainage at Ch. 4.756 KM									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	213.59	Cum	**195.20**	41693.34			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	37.70	Cum	**6381.70**	240608.28	12.22	16.97	33.93
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	44.02	Cum	**6914.20**	304352.11	18.16	18.93	37.86
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	306.14	Sqm	**578.60**	177133.89			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	0.86	MT	**73574.90**	63558.51			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	41.41	Cum	**149.30**	6182.36			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	35.89	Cum	**1075.00**	38586.27			
		Coarse Aggregates (100 Km lead)	71.79	Cum	**1398.00**	100360.18			
		Cement (30 km lead)	30.37	MT	**742.00**	22537.00			
		Steel (30 Km lead)	0.86	MT	**742.00**	640.99			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 10,68,786.48**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	35.89	Cum	**584.64**	20985.19	2098.52		
		Coarse Aggregate	71.79	Cum	**944.26**	67786.92	6778.69		
		Total					**8877.21**		

S. No.	Ref	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST CD WORK IGUNI MINOR									
Cross Drainage at Ch. 1.580 Km									
1	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	166.60	Cum	**195.20**	32520.43			
2	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	41.28	Cum	**6381.70**	263412.23	13.37	18.57	37.15
3	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	73.04	Cum	**6914.20**	505036.83	30.13	31.41	62.82
4	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	350.25	Sqm	**578.60**	202655.63			
5	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	12.50	RM	**6002.82**	75035.25			
6	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	12.50	RM	**1713.33**	21416.63			
7	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.43	MT	**73574.90**	105467.94			
8	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	39.80	Cum	**149.30**	5941.49			
9		**Carriage of materials**							
		Coarse Sand 30 Km lead)	49.98	Cum	**1075.00**	53731.68			
		Coarse Aggregates (100 Km lead)	99.97	Cum	**1398.00**	139752.34			
		Cement (30 km lead)	43.50	MT	**742.00**	32279.89			
		Steel (30 Km lead)	1.43	MT	**742.00**	1063.64			
		Hume Pipe (30 Km)	12.50	RM	**1470.00**	18375.00			
TOTAL (In Rs.)						**₹ 14,24,168.55**			
		Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
		Coarse Sand	49.98	Cum	**584.64**	29222.03	2922.20		
		Coarse Aggregate	99.97	Cum	**944.26**	94393.81	9439.38		
		Total					**12361.58**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILED ESTIMATE FOR CROSS DRAINAGE WORKS OF MAHIMAPUR SUB DY.							
CROSS DRAINAGE AT CH.1.463 KM							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including						
	Left Portion	*1*	*10.38*	*13.78*		*142.97*	*Cum*
		1	*8.28*	*3.62*		*29.98*	*Cum*
	Middle Portion	*1*	*4.08*	*51.68*		*210.85*	*Cum*
	Right Portion	*1*	*10.38*	*14.60*		*151.54*	*Cum*
		1	*8.28*	*3.85*		*31.88*	*Cum*
	TOTAL					**567.22**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*12.48*	*1.06*	*0.30*	*3.98*	*Cum*
		1	*8.28*	*3.95*	*0.30*	*9.81*	*Cum*
	300 mm Thick Left Abutment	*1*	*12.48*	*1.48*	*0.30*	*5.53*	*Cum*
		1	*8.28*	*3.95*	*0.30*	*9.81*	*Cum*
	Below Pipe Section	*1*	*17.50*	*4.08*	*0.30*	*21.42*	*Cum*
		1	*17.50*	*0.92*		*16.08*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.58*	*2.50*	*0.20*	*6.58*	*Cum*
	Collar Joint Section	*6*	*0.30*	*3.98*	*1.94*	*13.90*	*Cum*
	Deduct Area of Pipe	*6*	*0.30*	*3.26*		*-5.86*	*Cum*
	TOTAL					**81.24**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*12.17*	*0.30*	*0.20*	*0.73*	*Cum*
		1	*12.17*	*0.53*	*1.54*	*9.95*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.58*	*0.30*	*0.50*	*0.69*	*Cum*
		1	*4.58*	*0.82*	*3.98*	*14.98*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.26*	*0.30*	*0.35*	*0.90*	*Cum*
		2	*4.26*	*0.68*	*2.76*	*15.92*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*12.01*	*0.30*	*0.20*	*0.72*	*Cum*
		1	*12.01*	*0.61*	*1.54*	*11.21*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.58*	*0.30*	*0.50*	*0.69*	*Cum*
		1	*4.58*	*0.82*	*3.50*	*13.21*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.26*	*0.72*	*2.52*	*15.35*	*Cum*
		2	*4.26*	*0.30*	*0.35*	*0.90*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.04*	*3.256*		*-6.76*	*Cum*
	TOTAL					**78.48**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*12.48*		*0.30*	7.49	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	8.28		0.30	4.97	*Sqm*
		2		3.95	0.30	2.37	*Sqm*
	300 mm Thick Right Abutment	2	*12.48*		*0.30*	7.49	*Sqm*
		2		*1.48*	*0.30*	0.89	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	8.28		0.30	4.97	*Sqm*
		2		3.95	0.30	2.37	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.58		0.20	5.26	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	12	0.30		1.94	6.98	*Sqm*
		12		3.98	1.94	92.65	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*12.17*		*0.20*	4.87	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*12.17*		*1.54*	37.48	*Sqm*
		2		0.53	1.54	1.64	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.58		0.50	4.58	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.58		3.98	36.46	*Sqm*
		2		0.82	3.98	6.54	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.26		0.35	5.97	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.26		2.76	47.05	*Sqm*
		4		0.68	2.76	7.47	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.58		3.50	32.03	*Sqm*
		2		0.82	3.50	5.77	*Sqm*
		2	4.58		0.50	4.58	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	12.01		1.54	36.99	*Sqm*
		2		0.61	1.54	1.87	*Sqm*
		2	12.01		0.20	4.80	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.26		2.52	42.94	*Sqm*
		4		0.72	2.52	7.21	*Sqm*
		4	4.26		0.35	5.97	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**433.95**	***Sqm***
5	Providing 1200 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*14*	*2.50*			*35.00*	*RM*
	TOTAL					**35.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*78.48*	*0.0025*	*0.196*	*7850.00*	*1540.088*	*Kg*
	TOTAL					*1540.088*	*Kg*
	TOTAL					**1.54**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*12.48*	*0.71*		*8.89*	*Cum*
	D/S Transitions Walls	*1*	*12.48*	*0.71*		*8.89*	*Cum*
	Above Hume Pipe	*1*	*29.57*		*4.08*	*120.65*	*Cum*
	TOTAL					**138.43**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	CROSS DRAINAGE AT CH.5.319 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including						
	Left Portion	*1*	*10.38*	*4.94*		*51.27*	*Cum*
		1	*8.28*	*1.53*		*12.62*	*Cum*
	Middle Portion	*1*	*4.08*	*15.15*		*61.82*	*Cum*
	Right Portion	*1*	*10.38*	*7.58*		*78.64*	*Cum*
		1	*8.28*	*2.09*		*17.26*	*Cum*
	TOTAL					**221.61**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*12.48*	*1.06*	*0.30*	*3.98*	*Cum*
		1	*8.28*	*3.95*	*0.30*	*9.81*	*Cum*
	300 mm Thick Left Abutment	*1*	*12.48*	*1.48*	*0.30*	*5.53*	*Cum*
		1	*8.28*	*3.95*	*0.30*	*9.81*	*Cum*
	Below Pipe Section	*1*	*15.00*	*4.08*	*0.30*	*18.36*	*Cum*
		1	*15.00*	*0.75*		*11.19*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.58*	*2.50*	*0.20*	*6.58*	*Cum*
	Collar Joint Section	*5*	*0.30*	*3.98*	*1.94*	*11.58*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*3.26*		*-4.88*	*Cum*
	TOTAL					**71.96**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*12.17*	*0.30*	*0.20*	*0.73*	*Cum*
		1	*12.17*	*0.53*	*1.54*	*9.95*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.58*	*0.30*	*0.50*	*0.69*	*Cum*
		1	*4.58*	*0.82*	*3.48*	*13.10*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.26*	*0.30*	*0.35*	*0.90*	*Cum*
		2	*4.26*	*0.68*	*2.51*	*14.47*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*12.01*	*0.30*	*0.20*	*0.72*	*Cum*
		1	*12.01*	*0.53*	*1.54*	*9.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.58*	*0.30*	*0.50*	*0.69*	*Cum*
		1	*4.58*	*0.82*	*3.50*	*13.21*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.26*	*0.68*	*2.52*	*14.55*	*Cum*
		2	*4.26*	*0.30*	*0.35*	*0.90*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.04*	*3.256*		*-6.76*	*Cum*
	TOTAL					**72.96**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*12.48*		*0.30*	7.49	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	8.28		0.30	4.97	*Sqm*
		2		3.95	0.30	2.37	*Sqm*
	300 mm Thick Right Abutment	2	*12.48*		*0.30*	7.49	*Sqm*
		2		*1.48*	*0.30*	0.89	*Sqm*
		2	8.28		0.30	4.97	*Sqm*
		2		3.95	0.30	2.37	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	200 mm Thick Left and Right Portion Well	4	6.58		0.20	5.26	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		3.98	1.94	77.21	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*12.17*		*0.20*	4.87	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*12.17*		*1.54*	37.48	*Sqm*
		2		0.53	1.54	1.64	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.58		0.50	4.58	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.58		3.48	31.88	*Sqm*
		2		0.82	3.48	5.72	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.26		0.35	5.97	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.26		2.51	42.79	*Sqm*
		4		0.68	2.51	6.79	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.58		3.50	32.03	*Sqm*
		2		0.82	3.50	5.77	*Sqm*
		2	4.58		0.50	4.58	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	12.01		1.54	36.99	*Sqm*
		2		0.53	1.54	1.64	*Sqm*
		2	12.01		0.20	4.80	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.26		2.52	42.94	*Sqm*
		4		0.68	2.52	6.83	*Sqm*
		4	4.26		0.35	5.97	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**406.40**	***Sqm***
5	Providing 1200 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*72.96*	*0.0025*	*0.182*	*7850.00*	*1431.833*	*Kg*
	TOTAL					*1431.833*	*Kg*
	TOTAL					**1.43**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*12.48*	*0.77*		*9.61*	*Cum*
	D/S Transitions Walls	*1*	*12.48*	*0.77*		*9.61*	*Cum*
	Above Hume Pipe	*1*	*17.77*		*4.08*	*72.50*	*Cum*
	TOTAL					**91.72**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 9.028 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.18*	*10.98*		*89.79*	*Cum*
		1	*6.06*	*2.48*		*15.00*	*Cum*
	Middle Portion	*1*	*1.83*	*29.44*		*53.88*	*Cum*
	Right Portion	*1*	*8.18*	*10.79*		*88.17*	*Cum*
		1	*6.06*	*2.43*		*14.73*	*Cum*
	TOTAL					**261.58**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*10.29*	*1.38*	*0.30*	*4.27*	*Cum*
		1	*6.06*	*3.59*	*0.30*	*6.52*	*Cum*
	300 mm Thick Right Abutment	*1*	*10.33*	*1.41*	*0.30*	*4.36*	*Cum*
		1	*6.07*	*3.59*	*0.30*	*6.55*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		1	*15.00*	*0.63*	*0.37*	*9.51*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Collar Joint Section	*5*	*0.30*	*1.73*	*1.60*	*4.15*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.19*		*-1.78*	*Cum*
	TOTAL					**46.14**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.99*	*0.30*	*0.20*	*0.60*	*Cum*
		1	*9.99*	*0.53*	*1.54*	*8.19*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.69*	*2.63*	*4.25*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.13*	*0.30*	*0.35*	*0.87*	*Cum*
		2	*4.13*	*0.61*	*2.09*	*10.57*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*10.03*	*0.30*	*0.20*	*0.60*	*Cum*
		1	*10.03*	*0.53*	*1.54*	*8.23*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.70*	*2.64*	*4.28*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.14*	*0.61*	*2.09*	*10.64*	*Cum*
		2	*4.14*	*0.30*	*0.35*	*0.87*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.81*	*1.188*		*-1.93*	*Cum*
	TOTAL					**47.87**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	*2*	*10.29*		*0.30*	*6.18*	*Sqm*
		2		*1.38*	*0.30*	*0.83*	*Sqm*
		2	*6.06*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.15*	*Sqm*
	300 mm Thick Right Abutment	*2*	*10.33*		*0.30*	*6.20*	*Sqm*
		2		*1.41*	*0.30*	*0.84*	*Sqm*
		2	*6.07*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.16*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*4.33*		*0.20*	*3.46*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*10*	*0.30*		*1.60*	*4.80*	*Sqm*
		10		*1.73*	*1.60*	*27.68*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.99*		*0.20*	*4.00*	*Sqm*
		2		*0.30*	*0.20*	*0.12*	*Sqm*
		2	*9.99*		*1.54*	*30.84*	*Sqm*
		2		*0.53*	*1.54*	*1.64*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		2	*2.33*		*2.63*	*12.24*	*Sqm*
		2		*0.69*	*2.63*	*3.65*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*2*	*4.13*		*0.35*	*2.89*	*Sqm*
		2		*0.30*	*0.35*	*0.21*	*Sqm*
		4	*4.13*		*2.09*	*34.49*	*Sqm*
		4		*0.61*	*2.09*	*5.12*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*2.33*		*2.64*	*24.60*	*Sqm*
		4		*0.70*	*2.64*	*7.36*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*10.03*		*1.54*	*61.93*	*Sqm*
		4		*0.53*	*1.54*	*3.28*	*Sqm*
		4	*10.03*		*0.20*	*8.03*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.14*		*2.09*	*34.67*	*Sqm*
		4		*0.61*	*2.09*	*5.14*	*Sqm*
		4	*4.14*		*0.35*	*5.80*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
	TOTAL					**320.75**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.87*	*0.0025*	*0.120*	*7850.00*	*939.532*	*Kg*
	TOTAL					*939.532*	*Kg*
	TOTAL					**0.94**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*10.292*	*0.71*		*7.31*	*Cum*
	D/S Transitions Walls	*1*	*6.06*	*0.71*		*4.30*	*Cum*
	Above Hume Pipe	*1*	*15.80*		*1.83*	*28.91*	*Cum*
	TOTAL					**40.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 10.698 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.18*	*10.37*		*84.74*	*Cum*
		1	*6.06*	*2.34*		*14.16*	*Cum*
	Middle Portion	*1*	*1.83*	*29.44*		*53.88*	*Cum*
	Right Portion	*1*	*8.18*	*8.46*		*69.17*	*Cum*
		1	*6.06*	*2.47*		*14.94*	*Cum*
	TOTAL					**236.89**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*10.29*	*1.38*	*0.30*	*4.27*	*Cum*
		1	*6.06*	*3.59*	*0.30*	*6.52*	*Cum*
	300 mm Thick Right Abutment	*1*	*10.33*	*1.41*	*0.30*	*4.36*	*Cum*
		1	*6.07*	*3.59*	*0.30*	*6.55*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		1	*15.00*	*0.63*	*0.37*	*9.51*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Collar Joint Section	*5*	*0.30*	*1.73*	*1.60*	*4.15*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.19*		*-1.78*	*Cum*
	TOTAL					**46.14**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.99*	*0.30*	*0.20*	*0.60*	*Cum*
		1	*9.99*	*0.61*	*1.54*	*9.35*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.69*	*2.63*	*4.25*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.13*	*0.30*	*0.35*	*0.87*	*Cum*
		2	*4.13*	*0.65*	*2.09*	*11.22*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*10.03*	*0.30*	*0.20*	*0.60*	*Cum*
		1	*10.03*	*0.61*	*1.54*	*9.39*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.70*	*2.64*	*4.28*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.14*	*0.65*	*2.09*	*11.29*	*Cum*
		2	*4.14*	*0.30*	*0.35*	*0.87*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.81*	*1.188*		*-1.93*	*Cum*
	TOTAL					**51.49**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	*2*	*10.29*		*0.30*	*6.18*	*Sqm*
		2		*1.38*	*0.30*	*0.83*	*Sqm*
		2	*6.06*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.15*	*Sqm*
	300 mm Thick Right Abutment	*2*	*10.33*		*0.30*	*6.20*	*Sqm*
		2		*1.41*	*0.30*	*0.84*	*Sqm*
		2	*6.07*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.16*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*4.33*		*0.20*	*3.46*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*10*	*0.30*		*1.60*	*4.80*	*Sqm*
		10		*1.73*	*1.60*	*27.68*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.99*		*0.20*	*4.00*	*Sqm*
		2		*0.30*	*0.20*	*0.12*	*Sqm*
		2	*9.99*		*1.54*	*30.84*	*Sqm*
		2		*0.61*	*1.54*	*1.87*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		2	*2.33*		*2.63*	*12.24*	*Sqm*
		2		*0.69*	*2.63*	*3.65*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*2*	*4.13*		*0.35*	*2.89*	*Sqm*
		2		*0.30*	*0.35*	*0.21*	*Sqm*
		4	*4.13*		*2.09*	*34.49*	*Sqm*
		4		*0.65*	*2.09*	*5.43*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*2.33*		*2.64*	*24.60*	*Sqm*
		4		*0.70*	*2.64*	*7.36*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*10.03*		*1.54*	*61.93*	*Sqm*
		4		*0.61*	*1.54*	*3.74*	*Sqm*
		4	*10.03*		*0.20*	*8.03*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.14*		*2.09*	*34.67*	*Sqm*
		4		*0.65*	*2.09*	*5.45*	*Sqm*
		4	*4.14*		*0.35*	*5.80*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
	TOTAL					**322.07**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1 m dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*51.49*	*0.0025*	*0.129*	*7850.00*	*1010.461*	*Kg*
	TOTAL					*1010.461*	*Kg*
	TOTAL					**1.01**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*10.292*	*0.71*		*7.32*	*Cum*
	D/S Transitions Walls	*1*	*6.06*	*0.71*		*4.31*	*Cum*
	Above Hume Pipe	*1*	*15.80*		*1.83*	*28.91*	*Cum*
	TOTAL					**40.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Bill of Quantity Cross Drainage of Deokuli Minor						
	Cross Drainage at Ch. 0.250 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.58*	*11.72*		*112.22*	*Cum*
		1	*7.60*	*3.08*		*23.44*	*Cum*
	Middle Portion	*1*	*3.66*	*49.63*		*181.65*	*Cum*
	Right Portion	*1*	*9.58*	*11.01*		*105.48*	*Cum*
		1	*7.60*	*2.52*		*19.19*	*Cum*
	TOTAL					**441.97**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*10.32*	*3.66*	*0.30*	*11.33*	*Cum*
		1	*10.32*	*0.75*		*7.69*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Section	*5*	*0.30*	*3.56*	*1.60*	*8.54*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**54.54**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.56*	*1.73*	*10.89*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.71*	*2.26*	*13.11*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*8.66*	*0.30*	*0.20*	*0.52*	*Cum*
		1	*8.66*	*0.63*	*1.73*	*9.50*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.75*	*2.27*	*14.41*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.86*	*2.375*		*-4.10*	*Cum*
	TOTAL					**67.86**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.60	4.80	*Sqm*
		10		3.56	1.60	56.96	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.73*	38.93	*Sqm*
		2		0.56	1.73	1.94	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.06		0.20	1.62	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		4	4.06		2.26	36.71	*Sqm*
		4		0.71	2.26	6.45	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.80	46.64	*Sqm*
		4		0.87	2.80	9.76	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	8.66		1.73	59.92	*Sqm*
		4		0.63	1.73	4.39	*Sqm*
		4	8.66		0.20	6.93	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.27	38.29	*Sqm*
		4		0.75	2.27	6.82	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**413.01**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*67.86*	*0.0025*	*0.170*	*7850.00*	*1331.683*	*Kg*
	TOTAL					*1331.683*	*Kg*
	TOTAL					**1.33**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.552*	*0.70*		*8.11*	*Cum*
	D/S Transitions Walls	*1*	*7.60*	*0.70*		*5.34*	*Cum*
	Above Hume Pipe	*1*	*29.97*		*3.66*	*109.69*	*Cum*
	TOTAL					**123.14**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 1.210 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.58*	*11.73*		*112.38*	*Cum*
		1	*7.60*	*2.83*		*21.48*	*Cum*
	Middle Portion	*1*	*3.66*	*50.75*		*185.75*	*Cum*
	Right Portion	*1*	*9.58*	*11.01*		*105.48*	*Cum*
		1	*7.60*	*2.66*		*20.23*	*Cum*
	TOTAL					**445.32**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*10.32*	*3.66*	*0.30*	*11.33*	*Cum*
		1	*10.32*	*0.75*		*7.69*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Section	*5*	*0.30*	*3.56*	*1.60*	*8.54*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**54.54**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.56*	*1.73*	*10.89*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.71*	*2.26*	*13.11*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*8.66*	*0.30*	*0.20*	*0.52*	*Cum*
		1	*8.66*	*0.63*	*1.73*	*9.50*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.75*	*2.27*	*14.41*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.86*	*2.375*		*-4.10*	*Cum*
	TOTAL					**67.86**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.60	4.80	*Sqm*
		10		3.56	1.60	56.96	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.73*	38.93	*Sqm*
		2		0.56	1.73	1.94	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.06		0.20	1.62	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		4	4.06		2.26	36.71	*Sqm*
		4		0.71	2.26	6.45	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.80	46.64	*Sqm*
		4		0.87	2.80	9.76	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	8.66		1.73	59.92	*Sqm*
		4		0.63	1.73	4.39	*Sqm*
		4	8.66		0.20	6.93	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.27	38.29	*Sqm*
		4		0.75	2.27	6.82	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**413.01**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*67.86*	*0.0025*	*0.170*	*7850.00*	*1331.683*	*Kg*
	TOTAL					*1331.683*	*Kg*
	TOTAL					**1.33**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.552*	*0.71*		*8.20*	*Cum*
	D/S Transitions Walls	*1*	*7.60*	*0.71*		*5.40*	*Cum*
	Above Hume Pipe	*1*	*29.97*		*3.66*	*109.69*	*Cum*
	TOTAL					**123.29**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 3.410 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*8.40*	*11.25*		*94.52*	*Cum*
		1	*6.22*	*2.89*		*17.96*	*Cum*
	Middle Portion	*1*	*1.83*	*29.30*		*53.62*	*Cum*
	Right Portion	*1*	*8.40*	*10.45*		*87.79*	*Cum*
		1	*6.22*	*2.74*		*17.04*	*Cum*
	TOTAL					**270.94**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*10.58*	*1.18*	*0.30*	*3.74*	*Cum*
		1	*6.22*	*3.92*	*0.30*	*7.32*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.16*	*1.18*	*0.30*	*3.94*	*Cum*
		1	*6.50*	*3.92*	*0.30*	*7.64*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		2	*15.00*	*0.19*		*5.59*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Collar Section	*5*	*1.60*	*1.83*	*0.30*	*4.39*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*0.37*		*0.56*	*Cum*
	TOTAL					**45.74**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*10.28*	*0.30*	*0.20*	*0.62*	*Cum*
		1	*10.28*	*0.59*	*1.53*	*9.26*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.86*	*2.84*	*5.67*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.30*	*0.30*	*0.35*	*0.90*	*Cum*
		2	*4.30*	*0.72*	*2.18*	*13.60*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*10.86*	*0.30*	*0.20*	*0.65*	*Cum*
		1	*10.86*	*0.59*	*1.53*	*9.79*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.32*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.32*	*0.86*	*2.84*	*5.66*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.40*	*0.30*	*0.35*	*0.92*	*Cum*
		2	*4.40*	*0.72*	*2.18*	*13.91*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.06*	*1.188*		*-2.51*	*Cum*
	TOTAL					**59.17**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*10.58*		*0.30*	6.35	*Sqm*
		2		*1.18*	*0.30*	0.71	*Sqm*
		2	6.22		0.30	3.73	*Sqm*
		2		3.92	0.30	2.35	*Sqm*
	300 mm Thick Right Abutment	2	*11.16*		*0.30*	6.70	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.18*	*0.30*	0.71	*Sqm*
		2	6.50		0.30	3.90	*Sqm*
		2		3.92	0.30	2.35	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.33		0.20	3.46	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	1.60		0.30	4.80	*Sqm*
		10		1.83	0.30	5.49	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*10.28*		*0.20*	4.11	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*10.28*		*1.53*	31.45	*Sqm*
		2		0.59	1.53	1.80	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.33		0.50	4.65	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.33		2.84	13.19	*Sqm*
		2		0.86	2.84	4.87	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.30		0.35	3.01	*Sqm*
		2		0.30	0.35	0.21	*Sqm*
		4	4.30		2.18	37.58	*Sqm*
		4		0.72	2.18	6.32	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	10.86		0.20	8.69	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
		4	10.86		1.53	66.48	*Sqm*
		4		0.59	1.53	3.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	2.32		0.50	4.65	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		4	2.32		2.84	26.35	*Sqm*
		4		0.86	2.84	9.74	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.40		0.35	6.16	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.40		2.18	38.43	*Sqm*
		4		0.72	2.18	6.32	*Sqm*
	TOTAL					**322.16**	***Sqm***
5	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*59.17*	*0.0025*	*0.148*	*7850.00*	*1161.300*	*Kg*
	TOTAL					*1161.300*	*Kg*
	TOTAL					**1.16**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*10.58*	*0.82*		*8.64*	*Cum*
	D/S Transitions Walls	*1*	*11.16*	*0.82*		*9.12*	*Cum*
	Above Hume Pipe	*1*	*18.49*		*1.18*	*21.76*	*Cum*
	TOTAL					**39.52**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 4.080 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.58*	*10.05*		*96.22*	*Cum*
		1	*7.60*	*2.64*		*20.10*	*Cum*
	Middle Portion	*1*	*3.66*	*43.19*		*158.07*	*Cum*
	Right Portion	*1*	*9.58*	*9.63*		*92.19*	*Cum*
		1	*7.60*	*2.45*		*18.60*	*Cum*
	TOTAL					**385.18**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.10*	*0.30*	*3.81*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.55*	*1.14*	*0.30*	*3.93*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*15.00*	*3.66*	*0.30*	*16.47*	*Cum*
		1	*15.00*	*0.75*		*11.19*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Section	*5*	*0.30*	*3.56*	*1.60*	*8.54*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**63.18**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.63*	*1.53*	*10.92*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.84*	*10.24*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.35*	*0.85*	*Cum*
		2	*4.06*	*0.75*	*2.18*	*13.32*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*8.66*	*0.30*	*0.20*	*0.52*	*Cum*
		1	*8.66*	*0.63*	*1.73*	*9.50*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
		2	*4.22*	*0.75*	*2.27*	*14.41*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.86*	*2.375*		*-4.10*	*Cum*
	TOTAL					**68.63**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.60	4.80	*Sqm*
		10		3.56	1.60	56.96	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.53*	34.43	*Sqm*
		2		0.63	1.53	1.94	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.84	23.59	*Sqm*
		2		0.87	2.84	4.92	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.06		0.35	2.84	*Sqm*
		2		0.30	0.35	0.21	*Sqm*
		4	4.06		2.18	35.45	*Sqm*
		4		0.75	2.18	6.56	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.80	46.64	*Sqm*
		4		0.87	2.80	9.76	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	8.66		1.73	59.92	*Sqm*
		4		0.63	1.73	4.39	*Sqm*
		4	8.66		0.20	6.93	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.22		2.27	38.29	*Sqm*
		4		0.75	2.27	6.82	*Sqm*
	TOTAL					**409.13**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*14*	*2.50*			*35.00*	*RM*
	TOTAL					**35.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*68.63*	*0.0025*	*0.172*	*7850.00*	*1346.901*	*Kg*
	TOTAL					*1346.901*	*Kg*
	TOTAL					**1.35**	**M.T.**
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.552*	*0.70*		*8.09*	*Cum*
	D/S Transitions Walls	*1*	*7.60*	*0.70*		*5.32*	*Cum*
	Above Hume Pipe	*1*	*25.38*		*3.66*	*92.89*	*Cum*
	TOTAL					**106.30**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Bill of Quantity Cross Drainage of Thakur Bigha Minor						
	Cross Drainage at Ch. 0.244 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.95*	*15.06*		*149.84*	*Cum*
		1	*7.85*	*3.96*		*31.11*	*Cum*
	Middle Portion	*1*	*3.66*	*47.07*		*172.28*	*Cum*
	Right Portion	*1*	*9.95*	*13.23*		*131.61*	*Cum*
		1	*7.85*	*4.12*		*32.37*	*Cum*
	TOTAL					**517.20**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*12.05*	*1.06*	*0.30*	*3.82*	*Cum*
		1	*7.85*	*3.88*	*0.30*	*9.15*	*Cum*
	300 mm Thick Left Abutment	*1*	*12.05*	*1.06*	*0.30*	*3.82*	*Cum*
		1	*7.85*	*3.88*	*0.30*	*9.15*	*Cum*
	Below Pipe Section	*1*	*15.00*	*3.66*	*0.30*	*16.47*	*Cum*
		1	*15.00*	*0.81*		*12.14*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Joint Section	*5*	*0.30*	*3.06*	*1.94*	*8.90*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**66.04**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.75*	*0.30*	*0.20*	*0.71*	*Cum*
		1	*11.75*	*0.53*	*1.53*	*9.52*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.82*	*3.48*	*11.89*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
		2	*4.22*	*0.68*	*2.51*	*14.29*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.75*	*0.30*	*0.20*	*0.71*	*Cum*
		1	*4.16*	*0.89*	*2.93*	*10.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.82*	*3.50*	*11.99*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.86*	*3.21*	*23.22*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.07*	*2.337*		*-5.00*	*Cum*
	TOTAL					**81.15**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*12.05*		*0.30*	7.23	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.85		0.30	4.71	*Sqm*
		2		3.88	0.30	2.33	*Sqm*
	300 mm Thick Right Abutment	2	*12.05*		*0.30*	7.23	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.85		0.30	4.71	*Sqm*
		2		3.88	0.30	2.33	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		3.06	1.94	59.36	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.75*		*0.20*	4.70	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.75*		*1.53*	35.96	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.16		3.48	28.93	*Sqm*
		2		0.82	3.48	5.72	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.22		2.51	42.28	*Sqm*
		4		0.68	2.51	6.77	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.16		3.50	29.07	*Sqm*
		2		0.82	3.50	5.77	*Sqm*
		2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	4.16		2.93	24.34	*Sqm*
		2		0.89	2.93	5.20	*Sqm*
		2	11.75		0.20	4.70	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		3.21	54.21	*Sqm*
		4		0.86	3.21	11.01	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**384.00**	***Sqm***
5	Providing 1000 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*81.15*	*0.0025*	*0.203*	*7850.00*	*1592.614*	*Kg*
	TOTAL					*1592.614*	*Kg*
	TOTAL					**1.59**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*12.05*	*0.71*		*8.51*	*Cum*
	D/S Transitions Walls	*1*	*12.05*	*0.71*		*8.51*	*Cum*
	Above Hume Pipe	*1*	*28.01*		*3.66*	*102.52*	*Cum*
	TOTAL					**119.54**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 1.798 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.95*	*11.82*		*117.60*	*Cum*
		1	*7.85*	*3.08*		*24.21*	*Cum*
	Middle Portion	*1*	*3.66*	*50.39*		*184.43*	*Cum*
	Right Portion	*1*	*9.95*	*9.83*		*97.82*	*Cum*
		1	*7.85*	*4.12*		*32.37*	*Cum*
	TOTAL					**456.43**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*12.05*	*1.06*	*0.30*	*3.82*	*Cum*
		1	*7.85*	*3.88*	*0.30*	*9.15*	*Cum*
	300 mm Thick Left Abutment	*1*	*12.05*	*1.06*	*0.30*	*3.82*	*Cum*
		1	*7.85*	*3.88*	*0.30*	*9.15*	*Cum*
	Below Pipe Section	*1*	*15.00*	*3.66*	*0.30*	*16.47*	*Cum*
		1	*15.00*	*0.81*		*12.14*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Joint Section	*5*	*0.30*	*3.06*	*1.94*	*8.90*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.34*		*-3.51*	*Cum*
	TOTAL					**66.10**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.75*	*0.30*	*0.20*	*0.71*	*Cum*
		1	*11.75*	*0.53*	*1.53*	*9.52*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.82*	*3.48*	*11.89*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
		2	*4.22*	*0.68*	*2.51*	*14.29*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.75*	*0.30*	*0.20*	*0.71*	*Cum*
		1	*4.16*	*0.89*	*2.93*	*10.82*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.82*	*3.50*	*11.99*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.86*	*3.21*	*23.22*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.20*	*2.337*		*-5.63*	*Cum*
	TOTAL					**80.52**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	2	*12.05*		*0.30*	7.23	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.85		0.30	4.71	*Sqm*
		2		3.88	0.30	2.33	*Sqm*
	300 mm Thick Right Abutment	2	*12.05*		*0.30*	7.23	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.85		0.30	4.71	*Sqm*
		2		3.88	0.30	2.33	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.94	5.82	*Sqm*
		10		3.06	1.94	59.36	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.75*		*0.20*	4.70	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.75*		*1.53*	35.96	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
		2	4.16		3.48	28.93	*Sqm*
		2		0.82	3.48	5.72	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.22		2.51	42.28	*Sqm*
		4		0.68	2.51	6.77	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	2	4.16		3.50	29.07	*Sqm*
		2		0.82	3.50	5.77	*Sqm*
		2	4.16		0.50	4.16	*Sqm*
		2		0.30	0.50	0.30	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	2	4.16		2.93	24.34	*Sqm*
		2		0.89	2.93	5.20	*Sqm*
		2	11.75		0.20	4.70	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		3.21	54.21	*Sqm*
		4		0.86	3.21	11.01	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**384.00**	***Sqm***
5	Providing 1000 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*80.52*	*0.0025*	*0.201*	*7850.00*	*1580.232*	*Kg*
	TOTAL					*1580.232*	*Kg*
	TOTAL					**1.58**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*12.05*	*0.71*		*8.51*	*Cum*
	D/S Transitions Walls	*1*	*12.05*	*0.71*		*8.51*	*Cum*
	Above Hume Pipe	*1*	*29.97*		*3.66*	*109.69*	*Cum*
	TOTAL					**126.71**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 2.164 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.18*	*10.78*		*88.10*	*Cum*
		1	*6.06*	*2.43*		*14.74*	*Cum*
	Middle Portion	*1*	*1.83*	*29.43*		*53.86*	*Cum*
	Right Portion	*1*	*8.18*	*10.94*		*89.46*	*Cum*
		1	*6.06*	*2.47*		*14.94*	*Cum*
	TOTAL					**261.09**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*10.29*	*1.38*	*0.30*	*4.27*	*Cum*
		1	*6.06*	*3.59*	*0.30*	*6.52*	*Cum*
	300 mm Thick Right Abutment	*1*	*10.33*	*1.41*	*0.30*	*4.36*	*Cum*
		1	*6.07*	*3.59*	*0.30*	*6.55*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.63*	*0.37*	*7.93*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Collar Joint Section	*4*	*0.30*	*1.73*	*1.60*	*3.32*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**42.71**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.99*	*0.30*	*0.20*	*0.60*	*Cum*
		1	*9.99*	*0.53*	*1.53*	*8.09*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.69*	*2.63*	*4.25*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.13*	*0.30*	*0.35*	*0.87*	*Cum*
		2	*4.13*	*0.61*	*2.08*	*10.52*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*10.03*	*0.30*	*0.20*	*0.60*	*Cum*
		1	*10.03*	*0.53*	*1.53*	*8.13*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.70*	*2.64*	*4.28*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.14*	*0.61*	*2.09*	*10.59*	*Cum*
		2	*4.14*	*0.30*	*0.35*	*0.87*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.81*	*1.188*		*-1.93*	*Cum*
	TOTAL					**47.57**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	*2*	*10.29*		*0.30*	*6.18*	*Sqm*
		2		*1.38*	*0.30*	*0.83*	*Sqm*
		2	*6.06*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.15*	*Sqm*
	300 mm Thick Right Abutment	*2*	*10.33*		*0.30*	*6.20*	*Sqm*
		2		*1.41*	*0.30*	*0.84*	*Sqm*
		2	*6.07*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.16*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*4.33*		*0.20*	*3.46*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*8*	*0.30*		*1.60*	*3.84*	*Sqm*
		8		*1.73*	*1.60*	*22.14*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.99*		*0.20*	*4.00*	*Sqm*
		2		*0.30*	*0.20*	*0.12*	*Sqm*
		2	*9.99*		*1.53*	*30.58*	*Sqm*
		2		*0.53*	*1.53*	*1.62*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		2	*2.33*		*2.63*	*12.24*	*Sqm*
		2		*0.69*	*2.63*	*3.65*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*2*	*4.13*		*0.35*	*2.89*	*Sqm*
		2		*0.30*	*0.35*	*0.21*	*Sqm*
		4	*4.13*		*2.08*	*34.38*	*Sqm*
		4		*0.61*	*2.08*	*5.09*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*2.33*		*2.64*	*24.60*	*Sqm*
		4		*0.70*	*2.64*	*7.36*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*10.03*		*1.53*	*61.41*	*Sqm*
		4		*0.53*	*1.53*	*3.24*	*Sqm*
		4	*10.03*		*0.20*	*8.03*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.14*		*2.09*	*34.56*	*Sqm*
		4		*0.61*	*2.09*	*5.12*	*Sqm*
		4	*4.14*		*0.35*	*5.80*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
	TOTAL					**313.15**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*47.57*	*0.0025*	*0.119*	*7850.00*	*933.642*	*Kg*
	TOTAL					*933.642*	*Kg*
	TOTAL					**0.93**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*10.292*	*0.70*		*7.23*	*Cum*
	D/S Transitions Walls	*1*	*6.06*	*0.70*		*4.26*	*Cum*
	Above Hume Pipe	*1*	*15.80*		*1.83*	*28.91*	*Cum*
	TOTAL					**40.40**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 3.324 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.58*	*12.99*		*124.38*	*Cum*
		1	*7.60*	*2.98*		*22.64*	*Cum*
	Middle Portion	*1*	*3.66*	*34.34*		*125.68*	*Cum*
	Right Portion	*1*	*9.58*	*10.64*		*101.92*	*Cum*
		1	*7.60*	*2.37*		*18.00*	*Cum*
	TOTAL					**392.63**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.06*	*0.30*	*3.67*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.55*	*1.06*	*0.30*	*3.67*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*12.50*	*3.66*	*0.30*	*13.73*	*Cum*
		1	*12.50*	*0.75*		*9.32*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Joint Section	*4*	*0.30*	*3.56*	*1.60*	*6.84*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*2.38*		*-2.85*	*Cum*
	TOTAL					**57.16**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.53*	*1.53*	*9.12*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.69*	*2.63*	*7.60*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.61*	*2.08*	*10.34*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.62*	*0.30*	*0.20*	*0.70*	*Cum*
		1	*11.62*	*0.60*	*1.53*	*10.75*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.70*	*2.64*	*7.66*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.65*	*2.09*	*11.46*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.82*	*2.375*		*-3.87*	*Cum*
	TOTAL					**57.05**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.60	3.84	*Sqm*
		8		3.56	1.60	45.57	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.53*	34.43	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.63	21.88	*Sqm*
		2		0.69	2.63	3.65	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.06		0.20	1.62	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		4	4.06		2.08	33.79	*Sqm*
		4		0.61	2.08	5.09	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.64	43.98	*Sqm*
		4		0.70	2.64	7.36	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	11.62		1.53	71.13	*Sqm*
		4		0.60	1.53	3.70	*Sqm*
		4	11.62		0.20	9.30	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.09	35.25	*Sqm*
		4		0.65	2.09	5.43	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**392.36**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*57.05*	*0.0025*	*0.143*	*7850.00*	*1119.535*	*Kg*
	TOTAL					*1119.535*	*Kg*
	TOTAL					**1.12**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.552*	*0.70*		*8.12*	*Cum*
	D/S Transitions Walls	*1*	*7.60*	*0.70*		*5.34*	*Cum*
	Above Hume Pipe	*1*	*18.70*		*3.66*	*68.44*	*Cum*
	TOTAL					**81.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 3.536 Km						
S. No.	**Item of Works**	**No.**		**Width**	**Height**	**Qty.**	**Unit**
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.58*	*11.87*		*113.66*	*Cum*
		1	*7.60*	*3.04*		*23.09*	*Cum*
	Middle Portion	*1*	*3.66*	*37.99*		*139.04*	*Cum*
	Right Portion	*1*	*9.58*	*11.57*		*110.81*	*Cum*
		1	*7.60*	*2.57*		*19.58*	*Cum*
	TOTAL					**406.18**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.55*	*1.06*	*0.30*	*3.67*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.55*	*1.06*	*0.30*	*3.67*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*12.50*	*3.66*	*0.30*	*13.73*	*Cum*
		1	*12.50*	*0.75*		*9.32*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Joint Section	*4*	*0.30*	*3.56*	*1.60*	*6.84*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*2.38*		*-2.85*	*Cum*
	TOTAL					**57.16**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.25*	*0.30*	*0.20*	*0.68*	*Cum*
		1	*11.25*	*0.53*	*1.53*	*9.12*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.79*	*10.08*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.06*	*0.30*	*0.20*	*0.49*	*Cum*
		2	*4.06*	*0.70*	*2.16*	*12.26*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*11.62*	*0.30*	*0.20*	*0.70*	*Cum*
		1	*11.62*	*0.53*	*1.53*	*9.42*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.87*	*2.80*	*10.15*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.70*	*2.17*	*12.81*	*Cum*
		2	*4.22*	*0.30*	*0.35*	*0.89*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.84*	*2.375*		*-3.99*	*Cum*
	TOTAL					**63.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.55*		*0.30*	6.93	*Sqm*
		2		*1.06*	*0.30*	0.63	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.60	3.84	*Sqm*
		8		3.56	1.60	45.57	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.25*		*0.20*	4.50	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.25*		*1.53*	34.43	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.79	23.21	*Sqm*
		2		0.87	2.79	4.85	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.06		0.20	1.62	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		4	4.06		2.16	35.09	*Sqm*
		4		0.70	2.16	6.04	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.80	46.64	*Sqm*
		4		0.87	2.80	9.76	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	11.62		1.53	71.13	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
		4	11.62		0.20	9.30	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		2.17	36.60	*Sqm*
		4		0.70	2.17	6.07	*Sqm*
		4	4.22		0.35	5.91	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
	TOTAL					**403.72**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*10*	*2.50*			*25.00*	*RM*
	TOTAL					**25.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*63.84*	*0.0025*	*0.160*	*7850.00*	*1252.904*	*Kg*
	TOTAL					*1252.904*	*Kg*
	TOTAL					**1.25**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.552*	*0.70*		*8.12*	*Cum*
	D/S Transitions Walls	*1*	*7.60*	*0.70*		*5.34*	*Cum*
	Above Hume Pipe	*1*	*18.70*		*3.66*	*68.44*	*Cum*
	TOTAL					**81.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 4.086 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.00*	*12.29*		*98.41*	*Cum*
		1	*6.02*	*3.22*		*19.41*	*Cum*
	Middle Portion	*1*	*2.04*	*30.68*		*62.59*	*Cum*
	Right Portion	*1*	*8.00*	*10.05*		*80.48*	*Cum*
		1	*6.02*	*2.42*		*14.60*	*Cum*
	TOTAL					**275.48**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	Below Pipe Section	*1*	*12.50*	*2.04*	*0.30*	*7.65*	*Cum*
		1	*12.50*	*0.59*		*7.43*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Collar portion	*4*	*0.30*	*1.94*	*1.94*	*4.52*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.63*		*-1.95*	*Cum*
	TOTAL					**43.62**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.76*	*3.09*	*6.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.66*	*2.42*	*13.58*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.76*	*3.09*	*6.19*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.66*	*2.42*	*13.50*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.33*	*1.628*		*-4.31*	*Cum*
	TOTAL					**58.61**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.94	1.94	30.11	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		3.09	16.20	*Sqm*
		2		0.76	3.09	4.72	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.24		0.40	3.40	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.24		2.42	41.00	*Sqm*
		4		0.66	2.42	6.40	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		3.09	32.40	*Sqm*
		4		0.76	3.09	9.44	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		1.74	67.40	*Sqm*
		4		0.56	1.74	3.90	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.42	40.77	*Sqm*
		4		0.66	2.42	6.40	*Sqm*
	TOTAL					**370.64**	***Sqm***
5	Providing 1200 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*58.61*	*0.0025*	*0.147*	*7850.00*	*1150.292*	*Kg*
	TOTAL					*1150.292*	*Kg*
	TOTAL					**1.15**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.98*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*6.02*	*0.92*		*5.52*	*Cum*
	Above Hume Pipe	*1*	*19.40*		*2.04*	*39.58*	*Cum*
	TOTAL					**54.24**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 4.267 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.00*	*12.20*		*97.65*	*Cum*
		1	*6.02*	*3.20*		*19.27*	*Cum*
	Middle Portion	*1*	*2.04*	*37.93*		*77.38*	*Cum*
	Right Portion	*1*	*8.00*	*14.03*		*112.33*	*Cum*
		1	*6.02*	*3.38*		*20.38*	*Cum*
	TOTAL					**327.01**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	Below Pipe Section	*1*	*12.50*	*2.04*	*0.30*	*7.65*	*Cum*
		1	*12.50*	*0.59*		*7.43*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Collar portion	*4*	*0.30*	*1.94*	*1.94*	*4.52*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.63*		*-1.95*	*Cum*
	TOTAL					**43.62**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.76*	*3.09*	*6.19*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.66*	*2.42*	*13.58*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.76*	*3.09*	*22.86*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.94*	*4.24*	*10.40*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.85*	*3.67*	*26.29*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.92*	*1.628*		*-3.00*	*Cum*
	TOTAL					**90.34**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.94	1.94	30.11	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		3.09	16.20	*Sqm*
		2		0.76	3.09	4.72	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.24		0.40	3.40	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.24		2.42	41.00	*Sqm*
		4		0.66	2.42	6.40	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		4.24	44.45	*Sqm*
		4		0.94	4.24	15.87	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		3.09	119.69	*Sqm*
		4		0.76	3.09	9.44	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		3.67	61.87	*Sqm*
		4		0.85	3.67	12.46	*Sqm*
	TOTAL					**474.13**	***Sqm***
5	Providing 1200 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*90.34*	*0.0025*	*0.226*	*7850.00*	*1772.942*	*Kg*
	TOTAL					*1772.942*	*Kg*
	TOTAL					**1.77**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.984*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*6.02*	*0.92*		*5.52*	*Cum*
	Above Hume Pipe	*1*	*20.08*		*2.04*	*40.96*	*Cum*
	TOTAL					**55.63**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Bill of Quantity Cross Drainage of Dadhpa Sub Dy						
	Cross Drainage at Ch. 0.130 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*8.00*	*14.58*		*116.72*	*Cum*
		1	*6.02*	*3.16*		*19.04*	*Cum*
	Middle Portion	*1*	*2.04*	*47.56*		*97.02*	*Cum*
	Right Portion	*1*	*8.00*	*14.58*		*116.66*	*Cum*
		1	*6.02*	*3.16*		*19.04*	*Cum*
	TOTAL					**368.49**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	Below Pipe Section	*1*	*15.00*	*2.04*	*0.30*	*9.18*	*Cum*
		1	*15.00*	*0.38*		*5.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Pipe Section	*4*	*0.30*	*1.94*	*1.94*	*4.52*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.63*		*-1.95*	*Cum*
	TOTAL					**43.48**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.84*	*3.57*	*7.82*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.70*	*2.65*	*15.73*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.84*	*3.57*	*7.82*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.70*	*2.65*	*15.64*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.06*	*1.628*		*-3.46*	*Cum*
	TOTAL					**67.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.94	1.94	30.11	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		3.57	18.71	*Sqm*
		2		0.84	3.57	5.96	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.24		0.40	3.40	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.24		2.65	45.07	*Sqm*
		4		0.70	2.65	7.41	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		3.57	37.42	*Sqm*
		4		0.84	3.57	11.93	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		1.74	67.40	*Sqm*
		4		0.56	1.74	3.90	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.65	44.81	*Sqm*
		4		0.70	2.65	7.41	*Sqm*
	TOTAL					**392.04**	***Sqm***
5	Providing 1200 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1200 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*67.01*	*0.0025*	*0.168*	*7850.00*	*1315.110*	*Kg*
	TOTAL					*1315.110*	*Kg*
	TOTAL					**1.32**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*9.984*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*6.02*	*0.92*		*5.52*	*Cum*
	Above Hume Pipe	*1*	*25.32*		*2.04*	*51.65*	*Cum*
	TOTAL					**66.32**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 5.580 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*8.00*	*11.24*		*89.98*	*Cum*
		1	*6.02*	*2.62*		*15.77*	*Cum*
	Middle Portion	*1*	*2.04*	*31.24*		*63.73*	*Cum*
	Right Portion	*1*	*8.00*	*11.14*		*89.15*	*Cum*
		1	*6.02*	*2.59*		*15.62*	*Cum*
	TOTAL					**274.26**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.98*	*1.12*	*0.30*	*3.36*	*Cum*
		1	*6.02*	*4.07*	*0.30*	*7.36*	*Cum*
	Below Pipe Section	*1*	*15.00*	*2.04*	*0.30*	*9.18*	*Cum*
		1	*15.00*	*0.38*		*5.76*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.54*	*2.50*	*0.20*	*4.54*	*Cum*
	Pipe Section	*4*	*0.30*	*1.94*	*1.94*	*4.52*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.63*		*-1.95*	*Cum*
	TOTAL					**43.48**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.84*	*3.57*	*7.82*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.24*	*0.30*	*0.40*	*1.02*	*Cum*
		2	*4.24*	*0.70*	*2.65*	*15.73*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.68*	*0.30*	*0.30*	*0.87*	*Cum*
		1	*9.68*	*0.56*	*1.74*	*9.45*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.62*	*0.30*	*0.50*	*0.39*	*Cum*
		1	*2.62*	*0.84*	*3.57*	*7.82*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.22*	*0.30*	*0.40*	*1.01*	*Cum*
		2	*4.22*	*0.70*	*2.65*	*15.64*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*1.06*	*1.628*		*-3.46*	*Cum*
	TOTAL					**67.01**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	300 mm Thick Right Abutment	2	*9.98*		*0.30*	5.99	*Sqm*
		2		*1.12*	*0.30*	0.67	*Sqm*
		2	6.02		0.30	3.61	*Sqm*
		2		4.07	0.30	2.44	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.54		0.20	3.63	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.94	1.94	30.11	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.68*		*0.30*	5.81	*Sqm*
		2		0.30	0.30	0.18	*Sqm*
		2	*9.68*		*1.74*	33.70	*Sqm*
		2		0.56	1.74	1.95	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.62		3.57	18.71	*Sqm*
		2		0.84	3.57	5.96	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.24		0.40	3.40	*Sqm*
		2		0.30	0.40	0.24	*Sqm*
		4	4.24		2.65	45.07	*Sqm*
		4		0.70	2.65	7.41	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.62		3.57	37.42	*Sqm*
		4		0.84	3.57	11.93	*Sqm*
		4	2.62		0.50	5.24	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.68		1.74	67.40	*Sqm*
		4		0.56	1.74	3.90	*Sqm*
		4	9.68		0.30	11.62	*Sqm*
		4		0.30	0.30	0.36	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.22		0.40	6.75	*Sqm*
		4		0.30	0.40	0.48	*Sqm*
		4	4.22		2.65	44.81	*Sqm*
		4		0.70	2.65	7.41	*Sqm*
	TOTAL					**392.04**	***Sqm***
5	Providing 1200 mm NP2 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1200 mm dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*67.01*	*0.0025*	*0.168*	*7850.00*	*1315.110*	*Kg*
	TOTAL					*1315.110*	*Kg*
	TOTAL					**1.32**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*9.984*	*0.92*		*9.15*	*Cum*
	D/S Transitions Walls	*1*	*6.02*	*0.92*		*5.52*	*Cum*
	Above Hume Pipe	*1*	*12.64*		*2.04*	*25.79*	*Cum*
	TOTAL					**40.45**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Bill of Quantity Cross Drainage of Guraru Sub Dy.						
	Cross Drainage at Ch. 1.640 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*7.98*	*10.45*		*83.34*	*Cum*
		1	*6.31*	*2.44*		*15.40*	*Cum*
	Middle Portion	*1*	*1.83*	*37.53*		*68.68*	*Cum*
	Right Portion	*1*	*7.98*	*11.28*		*90.00*	*Cum*
		1	*6.31*	*2.64*		*16.65*	*Cum*
	TOTAL					**274.07**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.06*	*Cum*
		1	*6.31*	*6.64*	*0.30*	*12.58*	*Cum*
	300 mm Thick Right Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.06*	*Cum*
		1	*6.31*	*6.64*	*0.30*	*12.58*	*Cum*
	Below Pipe Section	*1*	*15.00*	*1.83*	*0.30*	*8.24*	*Cum*
		1	*15.00*	*0.63*	*0.37*	*9.51*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Collar Section	*5*	*0.30*	*1.73*	*1.60*	*4.15*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*1.19*		*-1.78*	*Cum*
	TOTAL					**55.72**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.34*	*0.30*	*0.20*	*1.12*	*Cum*
		2	*9.34*	*0.53*	*1.53*	*15.14*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*2.33*	*0.30*	*0.50*	*0.70*	*Cum*
		2	*2.33*	*0.72*	*2.81*	*9.44*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.30*	*0.35*	*0.85*	*Cum*
		2	*4.05*	*0.63*	*2.17*	*11.00*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*9.34*	*0.30*	*0.20*	*1.12*	*Cum*
		2	*9.34*	*0.60*	*1.53*	*17.28*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*2.33*	*0.30*	*0.50*	*0.70*	*Cum*
		2	*2.33*	*0.72*	*2.81*	*9.44*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.66*	*2.17*	*11.66*	*Cum*
		2	*4.05*	*0.30*	*0.35*	*0.85*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.82*	*1.188*		*-1.94*	*Cum*
	TOTAL					**77.34**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*9.64*		*0.30*	*5.79*	*Sqm*
		2		*1.06*	*0.30*	*0.64*	*Sqm*
		2	*6.31*		*0.30*	*3.79*	*Sqm*
		2		*6.64*	*0.30*	*3.99*	*Sqm*
	300 mm Thick Right Abutment	*2*	*9.64*		*0.30*	*5.79*	*Sqm*
		2		*1.06*	*0.30*	*0.64*	*Sqm*
		2	*6.31*		*0.30*	*3.79*	*Sqm*
		2		*6.64*	*0.30*	*3.99*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*4.33*		*0.20*	*3.46*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*10*	*0.30*		*1.60*	*4.80*	*Sqm*
		10		*1.73*	*1.60*	*27.68*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*4*	*9.34*		*0.20*	*7.47*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
		4	*9.34*		*1.53*	*57.17*	*Sqm*
		4		*0.53*	*1.53*	*3.24*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		4	*2.33*		*2.81*	*26.16*	*Sqm*
		4		*0.72*	*2.81*	*8.11*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*4*	*4.05*		*0.35*	*5.67*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
		4	*4.05*		*2.17*	*35.17*	*Sqm*
		4		*0.63*	*2.17*	*5.43*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*2.33*		*2.81*	*26.16*	*Sqm*
		4		*0.72*	*2.81*	*8.11*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*9.34*		*1.53*	*57.17*	*Sqm*
		4		*0.60*	*1.53*	*3.70*	*Sqm*
		4	*9.34*		*0.20*	*7.47*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.05*		*2.17*	*35.17*	*Sqm*
		4		*0.66*	*2.17*	*5.75*	*Sqm*
		4	*4.05*		*0.35*	*5.67*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
	TOTAL					**375.78**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*6*	*2.50*			*15.00*	*RM*
	TOTAL					**15.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*77.34*	*0.0025*	*0.193*	*7850.00*	*1517.806*	*Kg*
	TOTAL					*1517.806*	*Kg*
	TOTAL					**1.52**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*9.642*	*0.70*		*6.77*	*Cum*
	D/S Transitions Walls	*1*	*6.31*	*0.70*		*4.43*	*Cum*
	Above Hume Pipe	*1*	*17.38*		*1.83*	*31.81*	*Cum*
	TOTAL					**43.01**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 2.400 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.54*	*8.12*		*77.41*	*Cum*
		1	*7.60*	*1.87*		*14.23*	*Cum*
	Middle Portion	*1*	*3.66*	*30.72*		*112.44*	*Cum*
	Right Portion	*1*	*9.54*	*9.42*		*89.87*	*Cum*
		1	*7.60*	*2.17*		*16.52*	*Cum*
	TOTAL					**310.47**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*11.47*	*1.10*	*0.30*	*3.78*	*Cum*
		1	*7.60*	*3.64*	*0.30*	*8.30*	*Cum*
	300 mm Thick Right Abutment	*1*	*11.47*	*1.14*	*0.30*	*3.91*	*Cum*
		1	*7.64*	*3.64*	*0.30*	*8.35*	*Cum*
	Below Pipe Section	*1*	*15.00*	*3.66*	*0.30*	*16.47*	*Cum*
		1	*15.00*	*0.75*		*11.19*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*6.15*	*2.50*	*0.20*	*6.15*	*Cum*
	Collar Section	*5*	*0.30*	*3.56*	*1.60*	*8.54*	*Cum*
	Deduct Area of Pipe	*5*	*0.30*	*2.38*		*-3.56*	*Cum*
	TOTAL					**63.12**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*11.17*	*0.30*	*0.20*	*0.67*	*Cum*
		1	*11.17*	*0.60*	*1.53*	*10.33*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.71*	*2.74*	*8.10*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*3.95*	*0.30*	*0.35*	*0.83*	*Cum*
		2	*3.95*	*0.66*	*2.14*	*11.10*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*8.66*	*0.30*	*0.20*	*0.52*	*Cum*
		1	*8.66*	*0.60*	*1.53*	*8.01*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*4.16*	*0.30*	*0.50*	*0.62*	*Cum*
		1	*4.16*	*0.71*	*2.74*	*8.10*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*3.95*	*0.30*	*0.35*	*0.83*	*Cum*
		2	*3.95*	*0.66*	*2.14*	*11.10*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.85*	*2.375*		*-4.03*	*Cum*
	TOTAL					**56.82**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	2	*11.47*		*0.30*	6.88	*Sqm*
		2		*1.10*	*0.30*	0.66	*Sqm*
		2	7.60		0.30	4.56	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	300 mm Thick Right Abutment	2	*11.47*		*0.30*	6.88	*Sqm*
		2		*1.14*	*0.30*	0.68	*Sqm*
		2	7.64		0.30	4.58	*Sqm*
		2		3.64	0.30	2.18	*Sqm*
	200 mm Thick Left and Right Portion Well	4	6.15		0.20	4.92	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	10	0.30		1.60	4.80	*Sqm*
		10		3.56	1.60	56.96	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*11.17*		*0.20*	4.47	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*11.17*		*1.53*	34.19	*Sqm*
		2		0.60	1.53	1.85	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	4.16		2.74	22.80	*Sqm*
		2		0.71	2.74	3.90	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	3.95		0.35	2.77	*Sqm*
		2		0.30	0.35	0.21	*Sqm*
		4	3.95		2.14	33.75	*Sqm*
		4		0.66	2.14	5.62	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	4.16		2.74	45.59	*Sqm*
		4		0.71	2.74	7.79	*Sqm*
		4	4.16		0.50	8.32	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	8.66		1.53	52.99	*Sqm*
		4		0.60	1.53	3.70	*Sqm*
		4	8.66		0.20	6.93	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	3.95		0.35	5.53	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	3.95		2.14	33.75	*Sqm*
		4		0.66	2.14	5.62	*Sqm*
	TOTAL					**387.37**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*12*	*2.50*			*30.00*	*RM*
	TOTAL					**30.00**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*56.82*	*0.0025*	*0.142*	*7850.00*	*1115.094*	*Kg*
	TOTAL					*1115.094*	*Kg*
	TOTAL					**1.12**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*11.472*	*0.70*		*8.05*	*Cum*
	D/S Transitions Walls	*1*	*7.60*	*0.70*		*5.34*	*Cum*
	Above Hume Pipe	*1*	*10.50*		*3.66*	*38.44*	*Cum*
	TOTAL					**51.83**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 2.804 Km						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*8.18*	*10.78*		*88.10*	*Cum*
		1	*6.06*	*2.43*		*14.74*	*Cum*
	Middle Portion	*1*	*1.83*	*29.44*		*53.88*	*Cum*
	Right Portion	*1*	*10.33*	*10.78*		*111.36*	*Cum*
		1	*6.07*	*2.43*		*14.77*	*Cum*
	TOTAL					**282.84**	**Cum**
3	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*10.29*	*1.38*	*0.30*	*4.27*	*Cum*
		1	*6.06*	*3.59*	*0.30*	*6.52*	*Cum*
	300 mm Thick Right Abutment	*1*	*10.33*	*1.41*	*0.30*	*4.36*	*Cum*
		1	*6.07*	*3.59*	*0.30*	*6.55*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.63*	*0.37*	*7.93*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Pipe Section	*4*	*0.30*	*1.73*	*1.60*	*3.32*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**42.71**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.99*	*0.30*	*0.20*	*1.20*	*Cum*
		2	*9.99*	*0.69*	*1.53*	*21.16*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*2.33*	*0.30*	*0.50*	*0.70*	*Cum*
		2	*2.33*	*0.69*	*2.63*	*8.51*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.13*	*0.30*	*0.35*	*0.87*	*Cum*
		2	*4.13*	*0.69*	*2.08*	*11.92*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*10.03*	*0.30*	*0.20*	*1.20*	*Cum*
		2	*10.03*	*0.70*	*1.53*	*21.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*2.33*	*0.30*	*0.50*	*0.70*	*Cum*
		2	*2.33*	*0.70*	*2.64*	*8.58*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.14*	*0.70*	*2.09*	*12.09*	*Cum*
		2	*4.14*	*0.30*	*0.35*	*0.87*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.81*	*1.188*		*-1.93*	*Cum*
	TOTAL					**87.43**	**Cum**
5	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	300 mm Thick Left Abutment	*2*	*10.29*		*0.30*	*6.18*	*Sqm*
		2		*1.38*	*0.30*	*0.83*	*Sqm*
		2	*6.06*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.15*	*Sqm*
	300 mm Thick Right Abutment	*2*	*10.33*		*0.30*	*6.20*	*Sqm*
		2		*1.41*	*0.30*	*0.84*	*Sqm*
		2	*6.07*		*0.30*	*3.64*	*Sqm*
		2		*3.59*	*0.30*	*2.16*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*4.33*		*0.20*	*3.46*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*8*	*0.30*		*1.60*	*3.84*	*Sqm*
		8		*1.73*	*1.60*	*22.14*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*4*	*9.99*		*0.20*	*7.99*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
		4	*9.99*		*1.53*	*61.15*	*Sqm*
		4		*0.69*	*1.53*	*4.24*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*2.33*		*0.50*	*4.66*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		4	*2.33*		*2.63*	*24.51*	*Sqm*
		4		*0.69*	*2.63*	*7.31*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*4*	*4.13*		*0.35*	*5.79*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
		4	*4.13*		*2.08*	*34.38*	*Sqm*
		4		*0.69*	*2.08*	*5.77*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*2.33*		*2.64*	*24.63*	*Sqm*
		4		*0.70*	*2.64*	*7.36*	*Sqm*
		4	*2.33*		*0.50*	*4.66*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*10.03*		*1.53*	*61.41*	*Sqm*
		4		*0.70*	*1.53*	*4.30*	*Sqm*
		4	*10.03*		*0.20*	*8.03*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.14*		*2.09*	*34.56*	*Sqm*
		4		*0.70*	*2.09*	*5.84*	*Sqm*
		4	*4.14*		*0.35*	*5.80*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
	TOTAL					**371.98**	***Sqm***
6	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	1 m dia pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
7	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*87.43*	*0.0025*	*0.219*	*7850.00*	*1715.759*	*Kg*
	TOTAL					*1715.759*	*Kg*
	TOTAL					**1.72**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
8	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*10.292*	*0.70*		*7.20*	*Cum*
	D/S Transitions Walls	*1*	*6.06*	*0.70*		*4.24*	*Cum*
	Above Hume Pipe	*1*	*15.80*		*1.83*	*28.91*	*Cum*
	TOTAL					**40.36**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Cross Drainage at Ch. 4.756 KM						
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Left Portion	*1*	*9.64*	*0.70*		*6.78*	*Cum*
		1	*6.24*	*11.69*		*72.89*	*Cum*
	Middle Portion	*1*	*1.83*	*29.65*		*54.26*	*Cum*
	Right Portion	*1*	*9.64*	*0.70*		*6.78*	*Cum*
		1	*6.24*	*11.69*		*72.89*	*Cum*
	TOTAL					**213.59**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.06*	*Cum*
		1	*6.24*	*3.72*	*0.30*	*6.97*	*Cum*
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.06*	*Cum*
		1	*6.24*	*3.72*	*0.30*	*6.97*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.37*		*4.65*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.05*	*2.50*	*0.20*	*4.05*	*Cum*
	Collar portion	*4*	*0.30*	*1.73*	*1.94*	*4.03*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.63*		*-1.95*	*Cum*
	TOTAL					**37.70**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*1*	*9.34*	*0.30*	*0.20*	*0.56*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.69*	*2.58*	*4.12*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.02*	*0.30*	*0.35*	*0.85*	*Cum*
		2	*4.02*	*0.61*	*2.06*	*10.06*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*1*	*9.34*	*0.30*	*0.20*	*0.56*	*Cum*
		1	*9.34*	*0.53*	*1.53*	*7.57*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*1*	*2.33*	*0.30*	*0.50*	*0.35*	*Cum*
		1	*2.33*	*0.69*	*2.58*	*4.12*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.02*	*0.30*	*0.35*	*0.85*	*Cum*
		2	*4.02*	*0.61*	*2.06*	*10.06*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.92*	*1.628*		*-3.00*	*Cum*
	TOTAL					**44.02**	**Cum**
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	2	*9.64*		*0.30*	5.79	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	6.24		0.30	3.74	*Sqm*
		2		3.72	0.30	2.23	*Sqm*
	300 mm Thick Right Abutment	2	*9.64*		*0.30*	5.79	*Sqm*
		2		*1.06*	*0.30*	0.64	*Sqm*
		2	6.24		0.30	3.74	*Sqm*
		2		3.72	0.30	2.23	*Sqm*
	200 mm Thick Left and Right Portion Well	4	4.05		0.20	3.24	*Sqm*
		4		2.50	0.20	2.00	*Sqm*
	Pipe Section	8	0.30		1.94	4.66	*Sqm*
		8		1.73	1.94	26.85	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	2	*9.34*		*0.20*	3.74	*Sqm*
		2		0.30	0.20	0.12	*Sqm*
		2	*9.34*		*1.53*	28.59	*Sqm*
		2		0.53	1.53	1.62	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	4	2.33		0.50	4.65	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
		2	2.33		2.58	12.01	*Sqm*
		2		0.69	2.58	3.54	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	2	4.02		0.35	2.82	*Sqm*
		2		0.30	0.35	0.21	*Sqm*
		4	4.02		2.06	33.08	*Sqm*
		4		0.61	2.06	5.00	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	4	2.33		2.58	24.01	*Sqm*
		4		0.69	2.58	7.09	*Sqm*
		4	2.33		0.50	4.65	*Sqm*
		4		0.30	0.50	0.60	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	4	9.34		1.53	57.17	*Sqm*
		4		0.53	1.53	3.24	*Sqm*
		4	9.34		0.20	7.47	*Sqm*
		4		0.30	0.20	0.24	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	4	4.02		0.35	5.63	*Sqm*
		4		0.30	0.35	0.42	*Sqm*
		4	4.02		2.06	33.08	*Sqm*
		4		0.61	2.06	5.00	*Sqm*
	TOTAL					**306.14**	***Sqm***
5	Providing 1000 mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*44.02*	*0.0025*	*0.110*	*7850.00*	*863.861*	*Kg*
	TOTAL					*863.861*	*Kg*
	TOTAL					**0.86**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	U/S Transitions Walls	*1*	*9.642*	*0.70*		*6.78*	*Cum*
	D/S Transitions Walls	*1*	*6.24*	*0.70*		*4.38*	*Cum*
	Above Hume Pipe	*1*	*16.53*		*1.83*	*30.25*	*Cum*
	TOTAL					**41.41**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Bill of Quantity Cross Drainage of Iguni Minor						
	Cross Drainage at Ch. 1.580 Km						
1	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Left Portion	*1*	*9.64*	*0.70*		*6.78*	*Cum*
		1	*6.31*	*8.52*		*53.78*	*Cum*
	Middle Portion	*1*	*1.83*	*24.86*		*45.49*	*Cum*
	Right Portion	*1*	*9.64*	*0.70*		*6.78*	*Cum*
		1	*6.31*	*8.52*		*53.78*	*Cum*
	TOTAL					**166.60**	**Cum**
2	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.						
	300 mm Thick Left Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.06*	*Cum*
		1	*6.31*	*3.74*	*0.30*	*7.07*	*Cum*
	300 mm Thick Right Abutment	*1*	*9.64*	*1.06*	*0.30*	*3.06*	*Cum*
		1	*6.31*	*3.74*	*0.30*	*7.07*	*Cum*
	Below Pipe Section	*1*	*12.50*	*1.83*	*0.30*	*6.86*	*Cum*
		1	*12.50*	*0.63*	*0.37*	*7.93*	*Cum*
	200 mm Thick Left and Right Portion Well	*2*	*4.33*	*2.50*	*0.20*	*4.33*	*Cum*
	Collar Section	*4*	*0.30*	*1.73*	*1.60*	*3.32*	*Cum*
	Deduct Area of Pipe	*4*	*0.30*	*1.19*		*-1.43*	*Cum*
	TOTAL					**41.28**	**Cum**
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	U/S Portion Retaining Wall (Section C-C)	*2*	*9.34*	*0.30*	*0.20*	*1.12*	*Cum*
		2	*9.34*	*0.53*	*1.53*	*15.14*	*Cum*
	U/S Portion Retaining Wall (Section D-D)	*2*	*2.33*	*0.30*	*0.50*	*0.70*	*Cum*
		2	*2.33*	*0.72*	*2.45*	*8.23*	*Cum*
	U/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.30*	*0.35*	*0.85*	*Cum*
		2	*4.05*	*0.63*	*1.99*	*10.09*	*Cum*
	D/S Portion Retaining Wall (Section F-F)	*2*	*9.34*	*0.30*	*0.20*	*1.12*	*Cum*
		2	*9.34*	*0.60*	*1.53*	*17.28*	*Cum*
	D/S Portion Retaining Wall (Section E-E)	*2*	*2.33*	*0.30*	*0.50*	*0.70*	*Cum*
		2	*2.33*	*0.72*	*2.45*	*8.23*	*Cum*
	D/S Portion Retaining Wall (Avg. section)	*2*	*4.05*	*0.66*	*1.99*	*10.69*	*Cum*
		2	*4.05*	*0.30*	*0.35*	*0.85*	*Cum*
	Deduct Area of Pipe (Section D-D & Section E-E)	*2*	*0.82*	*1.188*		*-1.94*	*Cum*
	TOTAL					**73.04**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
4	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
	300 mm Thick Left Abutment	*2*	*9.64*		*0.30*	*5.79*	*Sqm*
		2		*1.06*	*0.30*	*0.64*	*Sqm*
		2	*6.31*		*0.30*	*3.79*	*Sqm*
		2		*3.74*	*0.30*	*2.24*	*Sqm*
	300 mm Thick Right Abutment	*2*	*9.64*		*0.30*	*5.79*	*Sqm*
		2		*1.06*	*0.30*	*0.64*	*Sqm*
		2	*6.31*		*0.30*	*3.79*	*Sqm*
		2		*3.74*	*0.30*	*2.24*	*Sqm*
	200 mm Thick Left and Right Portion Well	*4*	*4.33*		*0.20*	*3.46*	*Sqm*
		4		*2.50*	*0.20*	*2.00*	*Sqm*
	Pipe Section	*8*	*0.30*		*1.60*	*3.84*	*Sqm*
		8		*1.73*	*1.60*	*22.14*	*Sqm*
	U/S Portion Retaining Wall (Section C-C)	*4*	*9.34*		*0.20*	*7.47*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
		4	*9.34*		*1.53*	*57.17*	*Sqm*
		4		*0.53*	*1.53*	*3.24*	*Sqm*
	U/S Portion Retaining Wall (Section D-D)	*4*	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
		4	*2.33*		*2.45*	*22.80*	*Sqm*
		4		*0.72*	*2.45*	*7.07*	*Sqm*
	U/S Porion Retaining Wall (Avg. section)	*4*	*4.05*		*0.35*	*5.67*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
		4	*4.05*		*1.99*	*32.25*	*Sqm*
		4		*0.63*	*1.99*	*4.98*	*Sqm*
	D/S Portion Retaining Wall (Section E-E)	*4*	*2.33*		*2.45*	*22.80*	*Sqm*
		4		*0.72*	*2.45*	*7.07*	*Sqm*
		4	*2.33*		*0.50*	*4.65*	*Sqm*
		4		*0.30*	*0.50*	*0.60*	*Sqm*
	D/S Portion Retaining Wall (Section F-F)	*4*	*9.34*		*1.53*	*57.17*	*Sqm*
		4		*0.60*	*1.53*	*3.70*	*Sqm*
		4	*9.34*		*0.20*	*7.47*	*Sqm*
		4		*0.30*	*0.20*	*0.24*	*Sqm*
	D/S Portion Retaining Wall (Avg. section)	*4*	*4.05*		*1.99*	*32.25*	*Sqm*
		4		*0.66*	*1.99*	*5.28*	*Sqm*
		4	*4.05*		*0.35*	*5.67*	*Sqm*
		4		*0.30*	*0.35*	*0.42*	*Sqm*
	TOTAL					**350.25**	***Sqm***
5	Providing 1000mm NP4 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I						
	Hume Pipe	*5*	*2.50*			*12.50*	*RM*
	TOTAL					**12.50**	**RM**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*73.04*	*0.0025*	*0.183*	*7850.00*	*1433.477*	*Kg*
	TOTAL					*1433.477*	*Kg*
	TOTAL					**1.43**	**M.T.**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
7	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	U/S Transitions Walls	*1*	*9.642*	*0.70*		*6.78*	*Cum*
	D/S Transitions Walls	*1*	*6.31*	*0.70*		*4.43*	*Cum*
	Above Hume Pipe	*1*	*15.62*		*1.83*	*28.58*	*Cum*
	TOTAL					**39.80**	**Cum**

Slab Bridge
(Total Cost – Rs ₹ 4,40,42,443.42)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF SLAB BRIDGE FOR MAHIMAPUR SUB DY. AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.585								
S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	140.000	Sqm	**11.80**	1652.61			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	117.768	Cum	**195.20**	22988.24			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.14	Cum	**6381.70**	58318.53	2.96	4.11	8.22
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.92	Cum	**6914.20**	220728.48	13.17	13.73	27.45
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.20	Cum	**8151.40**	278796.40	19.39	13.34	27.02
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.43	MT	**73574.90**	252141.15			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	224.90	Sqm	**578.60**	130129.16			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	Rm	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	80.93	Cum	**149.30**	12082.31			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	31.178	Cum	**1075.00**	33516.84			
	Coarse Aggregates (100 Km lead)	62.699	Cum	**1398.00**	87653.12			
	Cement (30 km lead)	35.522	MT	**742.00**	26357.44			
	Steel (30 Km lead)	3.43	MT	**742.00**	2542.83			
TOTAL (In Rs.)					**1546529.83**			
TOTAL (In Rs.)					**1546529.83**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	31.18	Cum	**584.64**	18228.17	1822.82		
	Coarse Aggregate	62.70	Cum	**944.26**	59204.10	5920.41		
	Total					7743.23		
	For 1 no, Total Seigniorage charges					**7743.23**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.604								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	90.194	Cum	**195.20**	17605.79			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	13.29	Cum	**6381.70**	84796.36	4.31	5.98	11.96
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	38.10	Cum	**6914.20**	263421.76	15.72	16.38	32.76
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	51.36	Cum	**8151.40**	418634.33	29.12	20.03	40.57
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.07	MT	**73574.90**	299156.55			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	292.37	Sqm	**578.60**	169162.50			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	62.90	Cum	**149.30**	9390.49			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	42.391	Cum	**1075.00**	45570.47			
	Coarse Aggregates (100 Km lead)	85.296	Cum	**1398.00**	119243.58			
	Cement (30 km lead)	49.140	MT	**742.00**	36462.21			
	Steel (30 Km lead)	4.07	MT	**742.00**	3016.98			
TOTAL (In Rs.)					**1887500.26**			
TOTAL (In Rs.)					**1887500.26**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	42.39	Cum	**584.64**	24783.55	2478.36		
	Coarse Aggregate	85.30	Cum	**944.26**	80541.45	8054.14		
	Total					10532.50		
	For 1 nos., Total Seigniorage charges					**10532.50**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.832								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	97.853	Cum	**195.20**	19100.97			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.60	Cum	**6381.70**	54904.27	2.79	3.87	7.74
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.92	Cum	**6914.20**	220728.48	13.17	13.73	27.45
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	34.20	Cum	**8151.40**	278796.40	19.39	13.34	27.02
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.43	MT	**73574.90**	252141.15			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	224.90	Sqm	**578.60**	130129.16			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	71.75	Cum	**149.30**	10711.84			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	30.938	Cum	**1075.00**	33258.03			
	Coarse Aggregates (100 Km lead)	62.217	Cum	**1398.00**	86979.97			
	Cement (30 km lead)	35.349	MT	**742.00**	26228.82			
	Steel (30 Km lead)	3.43	MT	**742.00**	2542.83			
TOTAL (In Rs.)					**1536443.12**			
TOTAL (In Rs.)					**1536443.12**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	30.94	Cum	**584.64**	18087.42	1808.74		
	Coarse Aggregate	62.22	Cum	**944.26**	58749.43	5874.94		
	Total					7683.69		
	For 1 nos., Total Seigniorage charges					**7683.69**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.334							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	89.277	Cum	**195.20**	17426.79			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.92	Cum	**6381.70**	63316.67	3.21	4.46	8.93
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	41.14	Cum	**6914.20**	284424.74	16.97	17.69	35.38
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.64	Cum	**8151.40**	257913.94	17.94	12.34	25.00
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.41	MT	**73574.90**	251041.80			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	216.72	Sqm	**578.60**	125393.06			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	93.22	Cum	**149.30**	13917.90			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	34.493	Cum	**1075.00**	37080.10			
	Coarse Aggregates (100 Km lead)	69.303	Cum	**1398.00**	96885.07			
	Cement (30 km lead)	38.123	MT	**742.00**	28287.61			
	Steel (30 Km lead)	3.41	MT	**742.00**	2531.75			
	TOTAL (In Rs.)				**1580276.69**			
	TOTAL (In Rs.)				**1580276.69**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	34.49	Cum	**584.64**	20166.05	2016.61		
	Coarse Aggregate	69.30	Cum	**944.26**	65439.70	6543.97		
	Total					8560.58		
	For 1 nos., Total Seigniorage charges					**8560.58**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 8.571								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	67.256	Cum	**195.20**	13128.38			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.64	Cum	**6381.70**	55145.93	2.80	3.89	7.78
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.88	Cum	**6914.20**	227329.90	13.56	14.14	28.28
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	26.35	Cum	**8151.40**	214797.55	14.94	10.28	20.82
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.81	MT	**73574.90**	206702.94			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	181.79	Sqm	**578.60**	105183.43			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	62.83	Cum	**149.30**	9381.24			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	28.303	Cum	**1075.00**	30426.05			
	Coarse Aggregates (100 Km lead)	56.870	Cum	**1398.00**	79504.41			
	Cement (30 km lead)	31.303	MT	**742.00**	23227.01			
	Steel (30 Km lead)	2.81	MT	**742.00**	2084.59			
TOTAL (In Rs.)					**1368850.66**			
TOTAL (In Rs.)					**1368850.66**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	28.30	Cum	**584.64**	16547.24	1654.72		
	Coarse Aggregate	56.87	Cum	**944.26**	53700.17	5370.02		
	Total					7024.74		
	For 1 nos., Total Seigniorage charges					**7024.74**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 10.169								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	130.000	Sqm	**11.80**	1534.57			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	74.729	Cum	**195.20**	14587.04			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.87	Cum	**6381.70**	82147.03	4.17	5.79	11.59
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	52.92	Cum	**6914.20**	365924.04	21.83	22.76	45.51
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	39.72	Cum	**8151.40**	323752.03	22.52	15.49	31.38
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.81	MT	**73574.90**	280237.51			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	247.10	Sqm	**578.60**	142969.67			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	47.59	Cum	**149.30**	7104.48			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	44.039	Cum	**1075.00**	47342.38			
	Coarse Aggregates (100 Km lead)	88.476	Cum	**1398.00**	123689.47			
	Cement (30 km lead)	48.521	MT	**742.00**	36002.82			
	Steel (30 Km lead)	3.81	MT	**742.00**	2826.18			
TOTAL (In Rs.)					**2069857.59**			
TOTAL (In Rs.)					**2069857.59**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	44.04	Cum	**584.64**	25747.21	2574.72		
	Coarse Aggregate	88.48	Cum	**944.26**	83544.36	8354.44		
	Total					10929.16		
	For 1 nos., Total Seigniorage charges					**10929.16**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 10.719							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	81.380	Cum	**195.20**	15885.39			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.77	Cum	**6381.70**	81519.84	4.14	5.75	11.50
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	48.42	Cum	**6914.20**	334786.11	19.97	20.82	41.64
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	38.90	Cum	**8151.40**	317094.00	22.06	15.17	30.73
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	4.38	MT	**73574.90**	322421.57			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	240.31	Sqm	**578.60**	139045.89			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	49.67	Cum	**149.30**	7415.61			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	41.740	Cum	**1075.00**	44870.66			
	Coarse Aggregates (100 Km lead)	83.869	Cum	**1398.00**	117249.29			
	Cement (30 km lead)	46.169	MT	**742.00**	34257.16			
	Steel (30 Km lead)	4.38	MT	**742.00**	3251.61			
	TOTAL (In Rs.)				**2060599.90**			
	TOTAL (In Rs.)				**2060599.90**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	41.74	Cum	**584.64**	24402.96	2440.30		
	Coarse Aggregate	83.87	Cum	**944.26**	79194.43	7919.44		
	Total					10359.74		
	For 1 nos., Total Seigniorage charges					**10359.74**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR DEOKULI MR.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.310								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	57.274	Cum	**195.20**	11179.88			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.32	Cum	**6381.70**	53066.39	2.69	3.74	7.48
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.67	Cum	**6914.20**	232805.41	13.89	14.48	28.96
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.65	Cum	**8151.40**	160164.36	11.14	7.66	15.52
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.67	MT	**73574.90**	196349.44			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	164.67	Sqm	**578.60**	95278.63			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	2.16	Sqm	**66.00**	142.56			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	5.40	RM	**36993.21**	199763.33			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.70	Cum	**149.30**	5329.72			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.883	Cum	**1075.00**	27824.53			
	Coarse Aggregates (100 Km lead)	51.963	Cum	**1398.00**	72644.36			
	Cement (30 km lead)	27.724	MT	**742.00**	20571.30			
	Steel (30 Km lead)	2.67	MT	**742.00**	1980.18			
TOTAL (In Rs.)					**1090805.59**			
TOTAL (In Rs.)					**1090805.59**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.88	Cum	**584.64**	15132.41	1513.24		
	Coarse Aggregate	51.96	Cum	**944.26**	49066.64	4906.66		
	Total					6419.90		
	For 1 nos., Total Seigniorage charges					**6419.90**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.510							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	54.461	Cum	**195.20**	10630.80			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.73	Cum	**6381.70**	55690.06	2.83	3.93	7.85
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.20	Cum	**6914.20**	229531.17	13.69	14.27	28.55
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.89	Cum	**8151.40**	194704.10	13.54	9.32	18.87
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.69	MT	**73574.90**	197696.33			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	172.49	Sqm	**578.60**	99803.06			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	36.99	Cum	**149.30**	5522.83			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.517	Cum	**1075.00**	29580.99			
	Coarse Aggregates (100 Km lead)	55.273	Cum	**1398.00**	77272.03			
	Cement (30 km lead)	30.065	MT	**742.00**	22307.88			
	Steel (30 Km lead)	2.69	MT	**742.00**	1993.76			
	TOTAL (In Rs.)				**1345536.16**			
	TOTAL (In Rs.)				**1345536.16**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.52	Cum	**584.64**	16087.66	1608.77		
	Coarse Aggregate	55.27	Cum	**944.26**	52192.33	5219.23		
	Total					6828.00		
	For 1 nos., Total Seigniorage charges					**6828.00**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.290							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	51.370	Cum	**195.20**	10027.43			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.73	Cum	**6381.70**	55690.06	2.83	3.93	7.85
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.20	Cum	**6914.20**	229531.17	13.69	14.27	28.55
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.89	Cum	**8151.40**	194704.10	13.54	9.32	18.87
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.69	MT	**73574.90**	197696.33			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	172.49	Sqm	**578.60**	99803.06			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	36.74	Cum	**149.30**	5485.94			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.517	Cum	**1075.00**	29580.99			
	Coarse Aggregates (100 Km lead)	55.273	Cum	**1398.00**	77272.03			
	Cement (30 km lead)	30.065	MT	**742.00**	22307.88			
	Steel (30 Km lead)	2.69	MT	**742.00**	1993.76			
	TOTAL (In Rs.)				**1345013.93**			
	TOTAL (In Rs.)				**1345013.93**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.52	Cum	**584.64**	16087.66	1608.77		
	Coarse Aggregate	55.27	Cum	**944.26**	52192.33	5219.23		
	Total					6828.00		
	For 1 nos., Total Seigniorage charges					**6828.00**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR THAKUR BIGHA MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.366								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	87.461	Cum	**195.20**	17072.35			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.25	Cum	**6381.70**	46278.05	2.35	3.26	6.53
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.62	Cum	**6914.20**	156409.19	9.33	9.73	19.45
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.47	Cum	**8151.40**	183148.81	12.74	8.76	17.75
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.62	MT	**73574.90**	193051.16			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	166.61	Sqm	**578.60**	96398.96			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	3.20	Sqm	**66.00**	211.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	8.00	RM	**36993.21**	295945.68			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	54.21	Cum	**149.30**	8093.91			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.753	Cum	**1075.00**	23384.63			
	Coarse Aggregates (100 Km lead)	43.731	Cum	**1398.00**	61135.91			
	Cement (30 km lead)	24.420	MT	**742.00**	18119.99			
	Steel (30 Km lead)	2.62	MT	**742.00**	1946.91			
TOTAL (In Rs.)					**1114430.06**			
TOTAL (In Rs.)					**1114430.06**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.75	Cum	**584.64**	12717.76	1271.78		
	Coarse Aggregate	43.73	Cum	**944.26**	41293.42	4129.34		
	Total					5401.12		
	For 1 nos., Total Seigniorage charges					**5401.12**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.676							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	97.031	Cum	**195.20**	18940.49			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.25	Cum	**6381.70**	46278.05	2.35	3.26	6.53
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.62	Cum	**6914.20**	156409.19	9.33	9.73	19.45
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.47	Cum	**8151.40**	183148.81	12.74	8.76	17.75
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.62	MT	**73574.90**	193051.16			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	166.61	Sqm	**578.60**	96398.96			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	3.20	Sqm	**66.00**	211.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	8.00	RM	**36993.21**	295945.68			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	61.32	Cum	**149.30**	9154.96			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	21.753	Cum	**1075.00**	23384.63			
	Coarse Aggregates (100 Km lead)	43.731	Cum	**1398.00**	61135.91			
	Cement (30 km lead)	24.420	MT	**742.00**	18119.99			
	Steel (30 Km lead)	2.62	MT	**742.00**	1946.91			
	TOTAL (In Rs.)				**1117359.26**			
	TOTAL (In Rs.)				**1117359.26**			

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	21.75	Cum	**584.64**	12717.76	1271.78		
	Coarse Aggregate	43.73	Cum	**944.26**	41293.42	4129.34		
	Total					5401.12		
	For 1 nos., Total Seigniorage charges					**5401.12**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.109							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	51.370	Cum	**195.20**	10027.43			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.73	Cum	**6381.70**	55690.06	2.83	3.93	7.85
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.20	Cum	**6914.20**	229531.17	13.69	14.27	28.55
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	23.89	Cum	**8151.40**	194704.10	13.54	9.32	18.87
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.69	MT	**73574.90**	197696.33			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	172.49	Sqm	**578.60**	99803.06			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.40	Sqm	**66.00**	290.40			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	11.00	RM	**36993.21**	406925.31			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	36.74	Cum	**149.30**	5485.94			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.517	Cum	**1075.00**	29580.99			
	Coarse Aggregates (100 Km lead)	55.273	Cum	**1398.00**	77272.03			
	Cement (30 km lead)	30.065	MT	**742.00**	22307.88			
	Steel (30 Km lead)	2.69	MT	**742.00**	1993.76			
	TOTAL (In Rs.)				**1345013.93**			
	TOTAL (In Rs.)				**1345013.93**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.52	Cum	**584.64**	16087.66	1608.77		
	Coarse Aggregate	55.27	Cum	**944.26**	52192.33	5219.23		
	Total					6828.00		
	For 1 nos., Total Seigniorage charges					**6828.00**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR DADHPA SUB DY.								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM1.220								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	287.211	Cum	**195.20**	56063.52			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.85	Cum	**6381.70**	69240.17	3.52	4.88	9.76
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	54.02	Cum	**6914.20**	373512.93	22.28	23.23	46.46
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.13	Cum	**8151.40**	302692.81	21.05	14.48	29.34
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.62	MT	**73574.90**	266463.17			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	236.17	Sqm	**578.60**	136646.00			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	209.82	Cum	**149.30**	31326.84			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	42.594	Cum	**1075.00**	45788.22			
	Coarse Aggregates (100 Km lead)	85.559	Cum	**1398.00**	119611.11			
	Cement (30 km lead)	46.854	MT	**742.00**	34765.63			
	Steel (30 Km lead)	3.62	MT	**742.00**	2687.27			
TOTAL (In Rs.)					**1933876.12**			
TOTAL (In Rs.)					**1933876.12**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	42.59	Cum	**584.64**	24901.98	2490.20		
	Coarse Aggregate	85.56	Cum	**944.26**	80789.69	8078.97		
	Total					10569.17		
	For 1 nos., Total Seigniorage charges					**10569.17**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.070							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	280.195	Cum	**195.20**	54693.97			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.85	Cum	**6381.70**	69240.17	3.52	4.88	9.76
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	54.02	Cum	**6914.20**	373512.93	22.28	23.23	46.46
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.13	Cum	**8151.40**	302692.81	21.05	14.48	29.34
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.62	MT	**73574.90**	266463.17			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	236.17	Sqm	**578.60**	136646.00			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	195.89	Cum	**149.30**	29247.09			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	42.594	Cum	**1075.00**	45788.22			
	Coarse Aggregates (100 Km lead)	85.559	Cum	**1398.00**	119611.11			
	Cement (30 km lead)	46.854	MT	**742.00**	34765.63			
	Steel (30 Km lead)	3.62	MT	**742.00**	2687.27			
	TOTAL (In Rs.)				**1930308.79**			
	TOTAL (In Rs.)				**1930308.79**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	42.59	Cum	**584.64**	24901.98	2490.20		
	Coarse Aggregate	85.56	Cum	**944.26**	80789.69	8078.97		
	Total					10569.17		
	For 1 nos., Total Seigniorage charges					**10569.17**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.460							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	54.326	Cum	**195.20**	10604.42			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.32	Cum	**6381.70**	53066.39	2.69	3.74	7.48
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	33.67	Cum	**6914.20**	232805.41	13.89	14.48	28.96
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.65	Cum	**8151.40**	160164.36	11.14	7.66	15.52
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.67	MT	**73574.90**	196349.44			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	164.67	Sqm	**578.60**	95278.63			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	2.16	Sqm	**66.00**	142.56			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	5.40	RM	**36993.21**	199763.33			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	34.18	Cum	**149.30**	5102.76			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	25.883	Cum	**1075.00**	27824.53			
	Coarse Aggregates (100 Km lead)	51.963	Cum	**1398.00**	72644.36			
	Cement (30 km lead)	27.724	MT	**742.00**	20571.30			
	Steel (30 Km lead)	2.67	MT	**742.00**	1980.18			
	TOTAL (In Rs.)				**1089649.04**			
	TOTAL (In Rs.)				**1089649.04**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	25.88	Cum	**584.64**	15132.41	1513.24		
	Coarse Aggregate	51.96	Cum	**944.26**	49066.64	4906.66		
	Total					6419.90		
	For 1 nos., Total Seigniorage charges					**6419.90**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.878							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	100.000	Sqm	**11.80**	1180.44			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	76.989	Cum	**195.20**	15028.19			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.60	Cum	**6381.70**	80434.44	4.08	5.67	11.34
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	45.19	Cum	**6914.20**	312471.80	18.64	19.43	38.87
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.50	Cum	**8151.40**	289378.33	20.13	13.85	28.05
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.46	MT	**73574.90**	254557.57			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	227.04	Sqm	**578.60**	131362.78			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	34.32	Cum	**149.30**	5124.16			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	38.950	Cum	**1075.00**	41871.06			
	Coarse Aggregates (100 Km lead)	78.255	Cum	**1398.00**	109400.01			
	Cement (30 km lead)	42.854	MT	**742.00**	31797.99			
	Steel (30 Km lead)	3.46	MT	**742.00**	2567.20			
	TOTAL (In Rs.)				**1916914.34**			
	TOTAL (In Rs.)				**1916914.34**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	38.95	Cum	**584.64**	22771.63	2277.16		
	Coarse Aggregate	78.25	Cum	**944.26**	73892.74	7389.27		
	Total					9666.44		
	For 1 nos., Total Seigniorage charges					**9666.44**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 6.040							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	65.000	Cum	**195.20**	12688.00			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	1.68	Cum	**6381.70**	10721.26	0.54	0.76	1.51
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	13.10	Cum	**8151.40**	106765.69	7.43	5.11	10.35
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	1.10	MT	**73574.90**	81123.83			
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	61.47	Sqm	**578.60**	35565.56			
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4.00	No.	**152.60**	1229.60			
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	30.00	Cum	**149.30**	4479.00			
12	**Carriage of materials**							
	Coarse Sand (60 Km lead)	5.864	Cum	**1075.00**	6303.97			
	Coarse Aggregates (100 Km lead)	11.859	Cum	**1398.00**	16579.29			
	Cement (30 km lead)	7.971	MT	**742.00**	5914.33			
	Steel (30 Km lead)	1.10	MT	**742.00**	818.13			
	TOTAL (In Rs.)				**683016.31**			
	TOTAL (In Rs.)				**683016.31**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	5.86	Cum	**584.64**	3428.42	342.84		
	Coarse Aggregate	11.86	Cum	**944.26**	11198.25	1119.83		
	Total					1462.67		
	For 1 nos., Total Seigniorage charges					**1462.67**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.400							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	46.343	Cum	**195.20**	9046.08			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.65	Cum	**6381.70**	48851.35	2.48	3.44	6.89
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	29.75	Cum	**6914.20**	205665.21	12.27	12.79	25.58
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.21	Cum	**8151.40**	181036.81	12.59	8.66	17.55
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.47	MT	**73574.90**	181938.18			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	162.97	Sqm	**578.60**	94292.44			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	26.63	Cum	**149.30**	3975.58			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	24.897	Cum	**1075.00**	26764.09			
	Coarse Aggregates (100 Km lead)	50.016	Cum	**1398.00**	69922.02			
	Cement (30 km lead)	27.343	MT	**742.00**	20288.37			
	Steel (30 Km lead)	2.47	MT	**742.00**	1834.84			
	TOTAL (In Rs.)				**1246026.35**			
	TOTAL (In Rs.)				**1246026.35**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	24.90	Cum	**584.64**	14555.68	1455.57		
	Coarse Aggregate	50.02	Cum	**944.26**	47227.87	4722.79		
	Total					6178.36		
	For 1 nos., Total Seigniorage charges					**6178.36**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.024							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	60.881	Cum	**195.20**	11883.94			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.60	Cum	**6381.70**	54874.78	2.79	3.87	7.74
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	32.99	Cum	**6914.20**	228116.77	13.61	14.19	28.37
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.86	Cum	**8151.40**	186345.10	12.96	8.92	18.06
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.58	MT	**73574.90**	190162.51			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	168.37	Sqm	**578.60**	97421.44			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	4.20	Sqm	**66.00**	277.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	10.50	RM	**36993.21**	388428.71			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	38.84	Cum	**149.30**	5798.91			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.972	Cum	**1075.00**	28994.71			
	Coarse Aggregates (100 Km lead)	54.172	Cum	**1398.00**	75732.80			
	Cement (30 km lead)	29.357	MT	**742.00**	21783.13			
	Steel (30 Km lead)	2.58	MT	**742.00**	1917.78			
	TOTAL (In Rs.)				**1305561.29**			
	TOTAL (In Rs.)				**1305561.29**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.97	Cum	**584.64**	15768.80	1576.88		
	Coarse Aggregate	54.17	Cum	**944.26**	51152.68	5115.27		
	Total					6692.15		
	For 1 nos., Total Seigniorage charges					**6692.15**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.900							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	110.000	Sqm	**11.80**	1298.48			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	125.539	Cum	**195.20**	24505.16			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.23	Cum	**6381.70**	65253.65	3.31	4.60	9.20
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.35	Cum	**6914.20**	278958.38	16.64	17.35	34.70
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	31.66	Cum	**8151.40**	258064.24	17.95	12.35	25.01
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.22	MT	**73574.90**	236585.65			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	205.26	Sqm	**578.60**	118765.98			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	78.98	Cum	**149.30**	11792.15			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	34.297	Cum	**1075.00**	36869.20			
	Coarse Aggregates (100 Km lead)	68.910	Cum	**1398.00**	96336.80			
	Cement (30 km lead)	37.906	MT	**742.00**	28126.35			
	Steel (30 Km lead)	3.22	MT	**742.00**	2385.96			
	TOTAL (In Rs.)				**1652603.93**			
	TOTAL (In Rs.)				**1652603.93**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	34.30	Cum	**584.64**	20051.36	2005.14		
	Coarse Aggregate	68.91	Cum	**944.26**	65069.38	6506.94		
	Total					8512.07		
	For 1 nos., Total Seigniorage charges					**8512.07**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
ABSTRACT OF COST FOR CONSTRUCTION OF SLAB CULVERT FOR IGUNI MINOR								
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.810								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	59.072	Cum	**195.20**	11530.85			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.81	Cum	**6381.70**	49839.24	2.53	3.51	7.03
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.53	Cum	**6914.20**	135028.63	8.06	8.40	16.80
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.60	Cum	**8151.40**	184206.07	12.81	8.81	17.85
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.29	MT	**73574.90**	168243.85			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	158.56	Sqm	**578.60**	91743.86			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	3.20	Sqm	**66.00**	211.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	8.00	RM	**36993.21**	295945.68			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	29.15	Cum	**149.30**	4351.89			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.725	Cum	**1075.00**	22279.56			
	Coarse Aggregates (100 Km lead)	41.676	Cum	**1398.00**	58263.50			
	Cement (30 km lead)	23.399	MT	**742.00**	17362.24			
	Steel (30 Km lead)	2.29	MT	**742.00**	1696.73			
TOTAL (In Rs.)					**1053936.61**			
TOTAL (In Rs.)					**1053936.61**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.73	Cum	**584.64**	12116.76	1211.68		
	Coarse Aggregate	41.68	Cum	**944.26**	39353.29	3935.33		
	Total					5147.00		
	For 1 nos., Total Seigniorage charges					**5147.00**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.000							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	70.000	Sqm	**11.80**	826.31			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	46.541	Cum	**195.20**	9084.85			
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	7.81	Cum	**6381.70**	49839.24	2.53	3.51	7.03
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	19.53	Cum	**6914.20**	135028.63	8.06	8.40	16.80
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	22.60	Cum	**8151.40**	184206.07	12.81	8.81	17.85
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.29	MT	**73574.90**	168243.85			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	158.56	Sqm	**578.60**	91743.86			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	3.20	Sqm	**66.00**	211.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	8.00	RM	**36993.21**	295945.68			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	22.78	Cum	**149.30**	3401.39			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	20.725	Cum	**1075.00**	22279.56			
	Coarse Aggregates (100 Km lead)	41.676	Cum	**1398.00**	58263.50			
	Cement (30 km lead)	23.399	MT	**742.00**	17362.24			
	Steel (30 Km lead)	2.29	MT	**742.00**	1696.73			
	TOTAL (In Rs.)				**1050540.13**			
	TOTAL (In Rs.)				**1050540.13**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	20.73	Cum	**584.64**	12116.76	1211.68		
	Coarse Aggregate	41.68	Cum	**944.26**	39353.29	3935.33		
	Total					5147.00		
	For 1 nos., Total Seigniorage charges					**5147.00**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 6.250								
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	80.000	Sqm	**11.80**	944.35			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	92.712	Cum	**195.20**	18097.32			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.55	Cum	**6381.70**	67335.87	3.42	4.75	9.50
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	40.19	Cum	**6914.20**	277852.71	16.58	17.28	34.56
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	37.89	Cum	**8151.40**	308822.40	21.48	14.78	29.93
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.51	MT	**73574.90**	258527.06			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	232.55	Sqm	**578.60**	134553.23			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	92.81	Cum	**149.30**	13856.02			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	36.803	Cum	**1075.00**	39563.76			
	Coarse Aggregates (100 Km lead)	73.986	Cum	**1398.00**	103432.21			
	Cement (30 km lead)	41.477	MT	**742.00**	30775.60			
	Steel (30 Km lead)	3.51	MT	**742.00**	2607.24			
TOTAL (In Rs.)					**1750029.70**			
TOTAL (In Rs.)					**1750029.70**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	36.80	Cum	**584.64**	21516.79	2151.68		
	Coarse Aggregate	73.99	Cum	**944.26**	69861.87	6986.19		
	Total					9137.87		
	For 1 nos., Total Seigniorage charges					**9137.87**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.700							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	108.024	Cum	**195.20**	21086.22			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.92	Cum	**6381.70**	82479.90	4.19	5.82	11.63
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.15	Cum	**6914.20**	319118.32	19.04	19.85	39.69
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	42.93	Cum	**8151.40**	349902.35	24.34	16.74	33.91
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.95	MT	**73574.90**	290611.62			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	261.29	Sqm	**578.60**	151183.78			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	110.55	Cum	**149.30**	16504.87			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	42.403	Cum	**1075.00**	45583.39			
	Coarse Aggregates (100 Km lead)	85.236	Cum	**1398.00**	119159.32			
	Cement (30 km lead)	47.565	MT	**742.00**	35293.07			
	Steel (30 Km lead)	3.95	MT	**742.00**	2930.81			
	TOTAL (In Rs.)				**2077010.55**			
	TOTAL (In Rs.)				**2077010.55**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	42.40	Cum	**584.64**	24790.58	2479.06		
	Coarse Aggregate	85.24	Cum	**944.26**	80484.54	8048.45		
	Total					10527.51		
	For 1 nos., Total Seigniorage charges					**10527.51**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 8.050							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	120.000	Sqm	**11.80**	1416.53			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	94.529	Cum	**195.20**	18452.07			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	12.92	Cum	**6381.70**	82479.90	4.19	5.82	11.63
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	46.15	Cum	**6914.20**	319118.32	19.04	19.85	39.69
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	42.93	Cum	**8151.40**	349902.35	24.34	16.74	33.91
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.43	MT	**73574.90**	252670.77			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	261.29	Sqm	**578.60**	151183.78			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	105.36	Cum	**149.30**	15730.29			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	42.403	Cum	**1075.00**	45583.39			
	Coarse Aggregates (100 Km lead)	85.236	Cum	**1398.00**	119159.32			
	Cement (30 km lead)	47.565	MT	**742.00**	35293.07			
	Steel (30 Km lead)	3.43	MT	**742.00**	2548.17			
	TOTAL (In Rs.)				**2035278.33**			
	TOTAL (In Rs.)				**2035278.33**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	42.40	Cum	**584.64**	24790.58	2479.06		
	Coarse Aggregate	85.24	Cum	**944.26**	80484.54	8048.45		
	Total					10527.51		
	For 1 nos., Total Seigniorage charges					**10527.51**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 12.152							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	59.160	Cum	**195.20**	11547.97			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	9.15	Cum	**6381.70**	58407.87	2.97	4.12	8.24
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	27.99	Cum	**6914.20**	193503.89	11.54	12.03	24.07
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	28.14	Cum	**8151.40**	229393.25	15.96	10.98	22.23
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.70	MT	**73574.90**	198601.89			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	177.66	Sqm	**578.60**	102796.91			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	35.73	Cum	**149.30**	5335.23			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	27.128	Cum	**1075.00**	29162.56			
	Coarse Aggregates (100 Km lead)	54.537	Cum	**1398.00**	76243.22			
	Cement (30 km lead)	30.466	MT	**742.00**	22605.82			
	Steel (30 Km lead)	2.70	MT	**742.00**	2002.89			
	TOTAL (In Rs.)				**1424325.83**			
	TOTAL (In Rs.)				**1424325.83**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	27.13	Cum	**584.64**	15860.09	1586.01		
	Coarse Aggregate	54.54	Cum	**944.26**	51497.44	5149.74		
	Total					6735.75		
	For 1 nos., Total Seigniorage charges					**6735.75**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 12.700							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	90.000	Sqm	**11.80**	1062.40			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	59.185	Cum	**195.20**	11552.90			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	10.46	Cum	**6381.70**	66780.41	3.39	4.71	9.42
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	39.32	Cum	**6914.20**	271858.25	16.22	16.91	33.81
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	35.63	Cum	**8151.40**	290461.91	20.20	13.90	28.15
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	3.33	MT	**73574.90**	245145.79			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	221.48	Sqm	**578.60**	128146.05			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	6.80	Sqm	**66.00**	448.80			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	17.00	RM	**36993.21**	628884.57			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	37.06	Cum	**149.30**	5533.56			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	35.513	Cum	**1075.00**	38176.56			
	Coarse Aggregates (100 Km lead)	71.382	Cum	**1398.00**	99792.71			
	Cement (30 km lead)	39.814	MT	**742.00**	29541.69			
	Steel (30 Km lead)	3.33	MT	**742.00**	2472.29			
	TOTAL (In Rs.)				**1832264.88**			
	TOTAL (In Rs.)				**1832264.88**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	35.51	Cum	**584.64**	20762.36	2076.24		
	Coarse Aggregate	71.38	Cum	**944.26**	67403.63	6740.36		
	Total					8816.60		
	For 1 nos., Total Seigniorage charges					**8816.60**		

S.no.	Item of Works	Qty.	Unit	Rate (As per WRD SOR 2025 & PL 2025)	Amount (Rs)	Cement (MT)	Coarse Sand (Cum)	Coarse Aggregate (Cum)
	AOC FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 13.225							
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	85.000	Sqm	**11.80**	1003.37			
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	46.029	Cum	**195.20**	8984.91			
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	8.07	Cum	**6381.70**	51517.07	2.62	3.63	7.27
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	28.70	Cum	**6914.20**	198463.68	11.84	12.34	24.69
5	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	28.14	Cum	**8151.40**	229393.25	15.96	10.98	22.23
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	2.71	MT	**73574.90**	199468.21			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	179.04	Sqm	**578.60**	103592.78			
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8.00	No.	**152.60**	1229.60			
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)	5.20	Sqm	**66.00**	343.20			
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	13.00	RM	**36993.21**	480911.73			
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2.00	No.	**5588.70**	11177.40			
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	27.88	Cum	**149.30**	4161.93			
13	**Carriage of materials**							
	Coarse Sand (60 Km lead)	26.951	Cum	**1075.00**	28971.81			
	Coarse Aggregates (100 Km lead)	54.182	Cum	**1398.00**	75747.08			
	Cement (30 km lead)	30.412	MT	**742.00**	22565.79			
	Steel (30 Km lead)	2.71	MT	**742.00**	2011.63			
	TOTAL (In Rs.)				**1419543.44**			
	TOTAL (In Rs.)				**1419543.44**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	26.95	Cum	**584.64**	15756.35	1575.64		
	Coarse Aggregate	54.18	Cum	**944.26**	51162.33	5116.23		
	Total					6691.87		
	For 1 nos., Total Seigniorage charges					**6691.87**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
DETAILS OF QUANTITIES FOR MAHIMAPUR SUB DISTRIBUTARY							
BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.585							
S.No.	**Items**	**No.**	**Length**	**Width**	**Height**	**Quantity**	**Unit**
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*140.00*			**140.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.96*	*1.58*	*1.98*	*12.30*	*Cum*
		1	*5.12*	*1.92*	*1.98*	*19.50*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.08*	*0.99*	*1.98*	*27.86*	*Cum*
	Left abutment	*2*	*1.96*	*1.49*	*1.98*	*11.60*	*Cum*
		1	*5.12*	*1.84*	*1.98*	*18.65*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.08*	*0.99*	*1.98*	*27.86*	*Cum*
	TOTAL					**117.77**	**Cum**
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.96*	*1.58*	*0.20*	*1.24*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Left abutment	*2*	*1.96*	*1.58*	*0.20*	*1.24*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Levelling course	*2*	*3.10*	*5.50*	*0.08*	*2.73*	*Cum*
	TOTAL					**9.14**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**31.92**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.10	5.50	0.38	*10.59*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Approch Slab	*2*	*3.50*	*5.50*	*0.33*	*12.61*	*Cum*
	Wearing coat	*1*	*12.10*	*4.50*	*0.08*	*4.08*	*Cum*
	Parapet	*2*	*12.10*	*0.44*	*0.18*	*1.88*	*Cum*
		2	*12.10*	*0.35*	*0.25*	*2.12*	*Cum*
		2	*12.10*	*0.22*	*0.55*	*2.91*	*Cum*
	TOTAL					**34.20**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*37*	*5.76*		*2.466*	*525.5*	*Kg*
a2	*12*	*26*	*6.10*		*0.888*	*140.8*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*22*	*5.68*		*0.616*	*77.0*	*Kg*
a5	*10*	*21*	*6.00*		*0.616*	*77.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*84*	*2.45*		*0.888*	*182.8*	*Kg*
x2	*16*	*84*	*1.45*		*1.578*	*191.6*	*Kg*
x3	*10*	*24*	*5.00*		*0.616*	*74.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*31.92*	*0.0025*	*0.080*	*7850.00*	*626.507*	*Kg*
	Total Reinforcement Steel (in kg)					*3427.0*	*Kg*
	Total Weight in Metric Tonne					**3.43**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.10*		*0.38*	*3.85*	*Sqm*
		1	*5.10*	5.50		*28.05*	*Sqm*
		2		*5.50*	0.38	*4.15*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.33*	*4.59*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.33	*7.21*	*Sqm*
	Parapet	*4*	*12.10*		*0.18*	*8.47*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.10*		*0.25*	*12.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.10*		*0.55*	*26.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**224.90**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.12	1.07		*10.98*	*Cum*
	Right and left Return wall	4	1.96	1.81		*14.22*	*Cum*
	Extra slope	*2*	*7.079*	*0.992*	*1.984*	*27.86*	*Cum*
		2	*7.079*	*0.992*	*1.984*	*27.86*	*Cum*
	TOTAL					**80.93**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.604						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.94*	*1.57*	*1.32*	*7.99*	*Cum*
		1	*8.13*	*1.88*	*1.32*	*20.07*	*Cum*
	Extra for Slope (0.5:1)	*2*	*10.07*	*0.66*	*1.32*	*17.44*	*Cum*
	Left abutment	*2*	*1.94*	*1.49*	*1.32*	*7.60*	*Cum*
		1	*8.13*	*1.84*	*1.32*	*19.65*	*Cum*
	Extra for Slope (0.5:1)	*2*	*10.07*	*0.66*	*1.32*	*17.44*	*Cum*
	TOTAL					**90.19**	**Cum**
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.94*	*1.57*	*0.20*	*1.21*	*Cum*
		1	*8.13*	*1.88*	*0.20*	*3.05*	*Cum*
	Left abutment	*2*	*1.94*	*1.57*	*0.20*	*1.21*	*Cum*
		1	*8.13*	*1.88*	*0.20*	*3.05*	*Cum*
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**13.29**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.13*	*1.68*	*0.20*	*2.72*	*Cum*
		1	*8.13*	*1.48*	*0.80*	*9.60*	*Cum*
		1	*8.13*	*1.05*	*0.85*	*7.24*	*Cum*
		1	*8.13*	*0.82*	*0.60*	*4.00*	*Cum*
	Return wall	*2*	*1.84*	*1.37*	*0.20*	*1.00*	*Cum*
		2	*1.84*	*1.17*	*0.80*	*3.43*	*Cum*
		2	*1.84*	*0.58*	*1.22*	*2.61*	*Cum*
		2	*1.84*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*8.13*	*1.68*	*0.20*	*2.72*	*Cum*
		1	*8.13*	*1.48*	*0.80*	*9.60*	*Cum*
		1	*8.13*	*1.05*	*0.85*	*7.24*	*Cum*
		1	*8.13*	*0.82*	*0.60*	*4.00*	*Cum*
	Return wall	*2*	*1.84*	*1.37*	*0.20*	*1.00*	*Cum*
		2	*1.84*	*1.17*	*0.80*	*3.43*	*Cum*
		2	*1.84*	*0.58*	*1.22*	*2.61*	*Cum*
		2	*1.84*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**38.10**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	4.85	8.50	0.45	*18.43*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	*0.33*	*19.49*	*Cum*
	Wearing coat	*1*	*11.85*	*7.50*	*0.08*	*6.67*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*11.85*	*0.44*	*0.18*	*1.84*	*Cum*
		2	*11.85*	*0.35*	*0.25*	*2.08*	*Cum*
		2	*11.85*	*0.22*	*0.55*	*2.85*	*Cum*
	TOTAL					**51.36**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*41*	*5.41*		*2.466*	*546.9*	*Kg*
a2	*12*	*36*	*8.90*		*0.888*	*284.4*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*5.27*		*0.616*	*94.2*	*Kg*
a5	*10*	*20*	*8.70*		*0.616*	*107.3*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*80*	*2.45*		*0.888*	*174.1*	*Kg*
x2	*16*	*80*	*1.45*		*1.578*	*182.4*	*Kg*
x3	*10*	*24*	*4.75*		*0.616*	*70.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*38.10*	*0.0025*	*0.095*	*7850.00*	*747.686*	*Kg*
	Total Reinforcement Steel (in kg)					*4066.0*	*Kg*
	Total Weight in Metric Tonne					**4.07**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.13*		*0.20*	*3.25*	*Sqm*
		2		*1.68*	*0.20*	*0.67*	*Sqm*
		2	*8.13*		*0.80*	*13.01*	*Sqm*
		2		*1.48*	*0.80*	*2.36*	*Sqm*
		2	*8.13*		*0.85*	*13.83*	*Sqm*
		2		*1.05*	*0.85*	*1.78*	*Sqm*
		2	*8.13*		*0.60*	*9.76*	*Sqm*
		2		*0.82*	*0.60*	*0.98*	*Sqm*
	Return wall	*2*	*1.84*		*0.20*	*0.74*	*Sqm*
		2		*1.37*	*0.20*	*0.55*	*Sqm*
		2	*1.84*		*0.80*	*2.94*	*Sqm*
		2		*1.17*	*0.80*	*1.87*	*Sqm*
		2	*1.84*		*1.22*	*4.48*	*Sqm*
		2		*0.58*	*1.22*	*1.42*	*Sqm*
		2	*1.84*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.13*		*0.20*	*3.25*	*Sqm*
		2		*1.68*	*0.20*	*0.67*	*Sqm*
		2	*8.13*		*0.80*	*13.01*	*Sqm*
		2		*1.48*	*0.80*	*2.36*	*Sqm*
		2	*8.13*		*0.85*	*13.83*	*Sqm*
		2		*1.05*	*0.85*	*1.78*	*Sqm*
		2	*8.13*		*0.60*	*9.76*	*Sqm*
		2		*0.82*	*0.60*	*0.98*	*Sqm*
	Return wall	*2*	*1.84*		*0.20*	*0.74*	*Sqm*
		2		*1.37*	*0.20*	*0.55*	*Sqm*
		2	*1.84*		*0.80*	*2.94*	*Sqm*
		2		*1.17*	*0.80*	*1.87*	*Sqm*
		2	*1.84*		*1.22*	*4.48*	*Sqm*
		2		*0.58*	*1.22*	*1.42*	*Sqm*
		2	*1.84*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*4.85*		*0.45*	*4.34*	*Sqm*
		1	*4.85*	8.50		*41.23*	*Sqm*
		2		*8.50*	0.45	*7.60*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.33*	*4.59*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.33	*11.14*	*Sqm*
	Parapet	*4*	*11.85*		*0.18*	*8.30*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*11.85*		*0.25*	*11.85*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*11.85*		*0.55*	*26.07*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**292.37**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.13	0.90		*14.58*	*Cum*
	Right and left Return wall	4	1.94	1.73		*13.44*	*Cum*
	Extra slope	*2*	*10.071*	*0.658*	*1.316*	*17.44*	*Cum*
		2	*10.071*	*0.658*	*1.316*	*17.44*	*Cum*
	TOTAL					**62.90**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.832						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.80*	*1.35*	*1.80*	*8.75*	*Cum*
		1	*5.12*	*1.92*	*1.80*	*17.69*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.92*	*0.90*	*1.80*	*22.42*	*Cum*
	Left abutment	*2*	*1.80*	*1.49*	*1.80*	*9.66*	*Cum*
		1	*5.12*	*1.84*	*1.80*	*16.92*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.92*	*0.90*	*1.80*	*22.42*	*Cum*
	TOTAL					**97.85**	**Cum**
3	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.80*	*1.35*	*0.20*	*0.97*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Left abutment	*2*	*1.80*	*1.35*	*0.20*	*0.97*	*Cum*
		1	*5.12*	*1.92*	*0.20*	*1.97*	*Cum*
	Levelling course	*2*	*3.10*	*5.50*	*0.08*	*2.73*	*Cum*
	TOTAL					**8.60**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*5.12*	*1.82*	*0.20*	*1.86*	*Cum*
		1	*5.12*	*1.57*	*0.80*	*6.43*	*Cum*
		1	*5.12*	*1.07*	*1.00*	*5.48*	*Cum*
		1	*5.12*	*0.82*	*0.50*	*2.10*	*Cum*
	Return wall	*2*	*1.86*	*1.38*	*0.20*	*1.03*	*Cum*
		2	*1.86*	*1.18*	*0.80*	*3.51*	*Cum*
		2	*1.86*	*0.69*	*1.27*	*3.26*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**31.92**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.10	5.50	0.38	*10.59*	*Cum*
	Approch Slab	*2*	*3.50*	*5.50*	*0.33*	*12.61*	*Cum*
	Wearing coat	*1*	*12.10*	*4.50*	*0.08*	*4.08*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*12.10*	*0.44*	*0.18*	*1.88*	*Cum*
		2	*12.10*	*0.35*	*0.25*	*2.12*	*Cum*
		2	*12.10*	*0.22*	*0.55*	*2.91*	*Cum*
	TOTAL					**34.20**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*20*	*37*	*5.76*		*2.466*	*525.5*	*Kg*
a2	*12*	*26*	*6.10*		*0.888*	*140.8*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*22*	*5.68*		*0.616*	*77.0*	*Kg*
a5	*10*	*21*	*6.00*		*0.616*	*77.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*84*	*2.45*		*0.888*	*182.8*	*Kg*
x2	*16*	*84*	*1.45*		*1.578*	*191.6*	*Kg*
x3	*10*	*24*	*5.00*		*0.616*	*74.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*31.92*	*0.0025*	*0.080*	*7850.00*	*626.507*	*Kg*
	Total Reinforcement Steel (in kg)					*3427.0*	*Kg*
	Total Weight in Metric Tonne					**3.43**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.12*		*0.20*	*2.05*	*Sqm*
		2		*1.82*	*0.20*	*0.73*	*Sqm*
		2	*5.12*		*0.80*	*8.19*	*Sqm*
		2		*1.57*	*0.80*	*2.51*	*Sqm*
		2	*5.12*		*1.00*	*10.24*	*Sqm*
		2		*1.07*	*1.00*	*2.14*	*Sqm*
		2	*5.12*		*0.50*	*5.12*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.74*	*Sqm*
		2		*1.38*	*0.20*	*0.55*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.18*	*0.80*	*1.89*	*Sqm*
		2	*1.86*		*1.27*	*4.72*	*Sqm*
		2		*0.69*	*1.27*	*1.75*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*5.10*		*0.38*	*3.85*	*Sqm*
		1	*5.10*	5.50		*28.05*	*Sqm*
		2		*5.50*	0.38	*4.15*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.33*	*4.59*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.33	*7.21*	*Sqm*
	Parapet	*4*	*12.10*		*0.18*	*8.47*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.10*		*0.25*	*12.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.10*		*0.55*	*26.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**224.90**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.12	1.22		*12.49*	*Cum*
	Right and left Return wall	4	1.80	2.00		*14.42*	*Cum*
	Extra slope	*2*	*6.919*	*0.9*	*1.8*	*22.42*	*Cum*
		2	*6.919*	*0.9*	*1.8*	*22.42*	*Cum*
	TOTAL					**71.75**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 5.334						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.23*	*1.87*	*1.36*	*11.30*	*Cum*
		1	*6.13*	*2.16*	*1.36*	*17.99*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.36*	*1.87*	*1.36*	*21.19*	*Cum*
	Left abutment	*2*	*2.23*	*2.16*	*1.36*	*13.08*	*Cum*
		1	*6.13*	*2.16*	*1.36*	*17.99*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.36*	*0.68*	*1.36*	*7.71*	*Cum*
	TOTAL					**89.28**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.93*	*1.57*	*0.20*	*1.21*	*Cum*
		1	*6.13*	*1.86*	*0.20*	*2.28*	*Cum*
	Left abutment	*2*	*1.93*	*1.57*	*0.20*	*1.21*	*Cum*
		1	*6.13*	*1.86*	*0.20*	*2.28*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**9.92**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.13*	*1.66*	*0.20*	*2.04*	*Cum*
		1	*6.13*	*1.46*	*0.80*	*7.16*	*Cum*
		1	*6.13*	*0.94*	*0.80*	*4.61*	*Cum*
		1	*6.13*	*0.82*	*0.60*	*3.02*	*Cum*
	Return wall	*2*	*1.83*	*1.37*	*0.20*	*1.00*	*Cum*
		2	*1.83*	*1.17*	*0.80*	*3.41*	*Cum*
		2	*1.83*	*0.58*	*0.80*	*1.71*	*Cum*
		2	*1.83*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.13*	*1.66*	*0.20*	*2.04*	*Cum*
		1	*6.13*	*1.46*	*0.80*	*4.16*	*Cum*
		1	*6.13*	*0.94*	*0.80*	*4.61*	*Cum*
		1	*6.13*	*0.82*	*0.60*	*3.02*	*Cum*
	Return wall	*2*	*1.83*	*1.37*	*0.20*	*1.00*	*Cum*
		2	*1.83*	*1.17*	*0.80*	*3.41*	*Cum*
		2	*1.83*	*0.58*	*0.80*	*1.71*	*Cum*
		2	*1.83*	*0.40*	*0.15*	*0.22*	*Cum*
	DEDUCTION	*2*	*6.13*	*0.40*	*0.45*	*-2.21*	*Cum*
	TOTAL					**41.14**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	4.53	5.25	0.44	*10.35*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*11.53*	*4.25*	*0.08*	*3.68*	*Cum*
	Parapet	*2*	*11.53*	*0.44*	*0.18*	*1.79*	*Cum*
		2	*11.53*	*0.35*	*0.25*	*2.02*	*Cum*
		2	*11.53*	*0.22*	*0.55*	*2.78*	*Cum*
	TOTAL					**31.64**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*41*	*5.19*		*1.578*	*335.8*	*Kg*
a2	*10*	*36*	*7.00*		*0.616*	*155.3*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*29*	*5.11*		*0.616*	*91.4*	*Kg*
a5	*10*	*20*	*6.90*		*0.616*	*85.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.50*		*0.888*	*267.2*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.6*	*Kg*
c3	*12*	*86*	*3.50*		*0.888*	*267.2*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*76*	*2.40*		*0.888*	*162.1*	*Kg*
x2	*16*	*76*	*1.25*		*1.578*	*149.3*	*Kg*
x3	*10*	*24*	*4.43*		*0.616*	*65.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*41.1*	*0.0025*	*0.103*	*7850.00*	*807.30*	*Kg*
	Total Reinforcement Steel (in kg)					*3412.1*	*Kg*
	Total Weight in Metric Tonne					**3.41**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.13*		*0.20*	*2.45*	*Sqm*
		2		*1.66*	*0.20*	*0.66*	*Sqm*
		2	*6.13*		*0.80*	*9.81*	*Sqm*
		2		*1.46*	*0.80*	*2.34*	*Sqm*
		2	*6.13*		*0.80*	*9.81*	*Sqm*
		2		*0.94*	*0.80*	*1.50*	*Sqm*
		2	*6.13*		*0.60*	*7.36*	*Sqm*
		2		*0.82*	*0.60*	*0.98*	*Sqm*
	Return wall	*2*	*1.83*		*0.20*	*0.73*	*Sqm*
		2		*1.37*	*0.20*	*0.55*	*Sqm*
		2	*1.83*		*0.80*	*2.93*	*Sqm*
		2		*1.17*	*0.80*	*1.87*	*Sqm*
		2	*1.83*		*0.80*	*2.93*	*Sqm*
		2		*0.58*	*0.80*	*0.93*	*Sqm*
		2	*1.83*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.13*		*0.20*	*2.45*	*Sqm*
		2		*1.66*	*0.20*	*0.66*	*Sqm*
		2	*6.13*		*0.80*	*9.81*	*Sqm*
		2		*1.46*	*0.80*	*2.34*	*Sqm*
		2	*6.13*		*0.80*	*9.81*	*Sqm*
		2		*0.94*	*0.80*	*1.50*	*Sqm*
		2	*6.13*		*0.60*	*7.36*	*Sqm*
		2		*0.82*	*0.60*	*0.98*	*Sqm*
	Return wall	*2*	*1.83*		*0.20*	*0.73*	*Sqm*
		2		*1.37*	*0.20*	*0.55*	*Sqm*
		2	*1.83*		*0.80*	*2.93*	*Sqm*
		2		*1.17*	*0.80*	*1.87*	*Sqm*
		2	*1.83*		*0.80*	*2.93*	*Sqm*
		2		*0.58*	*0.80*	*0.93*	*Sqm*
		2	*1.83*		*0.15*	*0.55*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*4.53*		*0.44*	*3.94*	*Sqm*
		1	*4.53*	5.25		*23.78*	*Sqm*
		2		*5.25*	0.44	*4.57*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*11.53*		*0.18*	*8.07*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*11.53*		*0.25*	*11.53*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*11.53*		*0.55*	*25.37*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**216.72**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.13	0.89		*10.92*	*Cum*
	Right and left Return wall	4	2.23	1.74		*15.48*	*Cum*
	Below Approach Slab	*2*	*6.134*	*2.66*	*1.162*	*37.92*	*Cum*
	Extra slope	*1*	*8.364*	*1.866*	*1.358*	*21.19*	*Cum*
		1	*8.364*	*0.679*	*1.358*	*7.71*	*Cum*
	TOTAL					**93.22**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 8.571						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.18*	*1.73*	*1.20*	*9.06*	*Cum*
		1	*5.32*	*2.07*	*1.20*	*13.20*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.51*	*1.73*	*1.20*	*15.56*	*Cum*
	Left abutment	*2*	*2.18*	*2.07*	*1.20*	*10.83*	*Cum*
		1	*5.32*	*2.07*	*1.20*	*13.20*	*Cum*
	Extra for Slope (0.5:1)	*1*	*7.51*	*0.60*	*1.20*	*5.40*	*Cum*
	TOTAL					**67.26**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well as reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.77*	*Cum*
	Left abutment	*2*	*1.88*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.77*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.64**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.02*	*1.47*	*0.20*	*1.47*	*Cum*
		1	*5.02*	*1.32*	*0.80*	*5.29*	*Cum*
		1	*5.02*	*0.89*	*0.49*	*2.20*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.03*	*0.80*	*2.93*	*Cum*
		2	*1.78*	*0.51*	*0.76*	*1.39*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.02*	*1.47*	*0.20*	*1.47*	*Cum*
		1	*5.02*	*1.32*	*0.80*	*5.29*	*Cum*
		1	*5.02*	*0.89*	*0.49*	*2.20*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.03*	*0.80*	*2.93*	*Cum*
		2	*1.78*	*0.51*	*0.76*	*1.39*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**32.88**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.49	5.25	0.33	*5.98*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*10.49*	*4.25*	*0.08*	*3.34*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.49*	*0.44*	*0.18*	*1.63*	*Cum*
		2	*10.49*	*0.35*	*0.25*	*1.84*	*Cum*
		2	*10.49*	*0.22*	*0.55*	*2.53*	*Cum*
	TOTAL					**26.35**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.95*		*1.578*	*180.8*	*Kg*
a2	*10*	*18*	*5.65*		*0.616*	*62.7*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.87*		*0.616*	*42.9*	*Kg*
a5	*10*	*12*	*5.55*		*0.616*	*41.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*58*	*2.32*		*0.888*	*119.5*	*Kg*
x2	*16*	*58*	*1.27*		*1.578*	*116.6*	*Kg*
x3	*12*	*24*	*3.39*		*0.888*	*72.2*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.88*	*0.0025*	*0.082*	*7850.00*	*645.244*	*Kg*
	Total Reinforcement Steel (in kg)					*2809.4*	*Kg*
	Total Weight in Metric Tonne					**2.81**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.47*	*0.20*	*0.59*	*Sqm*
		2	*5.02*		*0.80*	*8.04*	*Sqm*
		2		*1.32*	*0.80*	*2.11*	*Sqm*
		2	*5.02*		*0.49*	*4.92*	*Sqm*
		2		*0.89*	*0.49*	*0.88*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.03*	*0.80*	*1.64*	*Sqm*
		2	*1.78*		*0.76*	*2.71*	*Sqm*
		2		*0.51*	*0.76*	*0.78*	*Sqm*
		2	*1.78*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.47*	*0.20*	*0.59*	*Sqm*
		2	*5.02*		*0.80*	*8.04*	*Sqm*
		2		*1.32*	*0.80*	*2.11*	*Sqm*
		2	*5.02*		*0.49*	*4.92*	*Sqm*
		2		*0.89*	*0.49*	*0.88*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.03*	*0.80*	*1.64*	*Sqm*
		2	*1.78*		*0.76*	*2.71*	*Sqm*
		2		*0.51*	*0.76*	*0.78*	*Sqm*
		2	*1.78*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.49*		*0.33*	*2.28*	*Sqm*
		1	*3.49*	5.25		*18.32*	*Sqm*
		2		*5.25*	0.33	*3.43*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*10.49*		*0.18*	*7.34*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.49*		*0.25*	*10.49*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.49*		*0.55*	*23.08*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**181.79**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.02	0.80		*8.04*	*Cum*
	Right and left Return wall	4	2.18	1.53		*13.36*	*Cum*
	Below Approach slab	2	*5.02*	*2.68*	*0.76*	*20.47*	*Cum*
	Extra slope	1	*7.51*	*1.73*	*1.20*	*15.56*	*Cum*
		1	*7.51*	*0.60*	*1.20*	*5.40*	*Cum*
	TOTAL					**62.83**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 10.169						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*130.00*			**130.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.90*	*1.45*	*1.20*	*6.59*	*Cum*
		1	*8.25*	*1.79*	*1.20*	*17.65*	*Cum*
	Extra for Slope (0.5:1)	*2*	*10.14*	*0.60*	*1.20*	*14.48*	*Cum*
	Left abutment	*2*	*1.90*	*1.45*	*1.20*	*6.59*	*Cum*
		1	*8.25*	*1.79*	*1.20*	*17.65*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.25*	*0.60*	*1.20*	*11.78*	*Cum*
	TOTAL					**74.73**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.90*	*1.45*	*0.20*	*1.10*	*Cum*
		1	*8.25*	*1.79*	*0.20*	*2.95*	*Cum*
	Left abutment	*2*	*1.90*	*1.45*	*0.20*	*1.10*	*Cum*
		1	*8.25*	*1.79*	*0.20*	*2.95*	*Cum*
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**12.87**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.25*	*1.79*	*0.20*	*2.95*	*Cum*
		1	*8.25*	*1.49*	*0.80*	*9.84*	*Cum*
		1	*8.25*	*0.91*	*0.57*	*4.26*	*Cum*
		1	*8.25*	*0.82*	*0.50*	*3.38*	*Cum*
	Return wall	*2*	*1.80*	*1.25*	*0.20*	*0.90*	*Cum*
		2	*1.80*	*1.05*	*0.80*	*3.03*	*Cum*
		2	*1.80*	*0.63*	*0.84*	*1.89*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*8.25*	*1.79*	*0.20*	*2.95*	*Cum*
		1	*8.25*	*1.49*	*0.80*	*9.84*	*Cum*
		1	*8.25*	*0.91*	*0.57*	*4.26*	*Cum*
		1	*8.25*	*0.82*	*0.50*	*3.38*	*Cum*
	Return wall	*2*	*1.80*	*1.25*	*0.20*	*0.90*	*Cum*
		2	*1.80*	*1.05*	*0.80*	*3.03*	*Cum*
		2	*1.80*	*0.63*	*0.84*	*1.89*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**52.92**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.90	8.50	0.35	*8.55*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	0.34	*19.93*	*Cum*
	Wearing coat	*1*	*9.90*	*7.50*	*0.08*	*5.57*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.90*	*0.44*	*0.18*	*1.54*	*Cum*
		2	*9.90*	*0.35*	*0.25*	*1.74*	*Cum*
		2	*9.90*	*0.22*	*0.55*	*2.38*	*Cum*
	TOTAL					**39.72**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*3.46*		*1.578*	*251.2*	*Kg*
a2	*10*	*15*	*8.90*		*0.616*	*82.3*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*3.32*		*0.616*	*59.4*	*Kg*
a5	*10*	*10*	*8.69*		*0.616*	*53.6*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*48*	*2.32*		*0.888*	*98.9*	*Kg*
x2	*16*	*48*	*1.27*		*1.578*	*96.5*	*Kg*
x3	*10*	*24*	*2.80*		*0.616*	*41.4*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*52.9*	*0.0025*	*0.132*	*7850.00*	*1038.62*	*Kg*
	Total Reinforcement Steel (in kg)					*3808.9*	*Kg*
	Total Weight in Metric Tonne					**3.81**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.25*		*0.20*	*3.30*	*Sqm*
		2		*1.79*	*0.20*	*0.72*	*Sqm*
		2	*8.25*		*0.80*	*13.19*	*Sqm*
		2		*1.49*	*0.80*	*2.39*	*Sqm*
		2	*8.25*		*0.57*	*9.40*	*Sqm*
		2		*0.91*	*0.57*	*1.03*	*Sqm*
		2	*8.25*		*0.50*	*8.25*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.80*		*0.80*	*2.87*	*Sqm*
		2		*1.05*	*0.80*	*1.69*	*Sqm*
		2	*1.80*		*0.84*	*3.02*	*Sqm*
		2		*0.63*	*0.84*	*1.05*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.25*		*0.20*	*3.30*	*Sqm*
		2		*1.79*	*0.20*	*0.72*	*Sqm*
		2	*8.25*		*0.80*	*13.19*	*Sqm*
		2		*1.49*	*0.80*	*2.39*	*Sqm*
		2	*8.25*		*0.57*	*9.40*	*Sqm*
		2		*0.91*	*0.57*	*1.03*	*Sqm*
		2	*8.25*		*0.50*	*8.25*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.25*	*0.20*	*0.50*	*Sqm*
		2	*1.80*		*0.80*	*2.87*	*Sqm*
		2		*1.05*	*0.80*	*1.69*	*Sqm*
		2	*1.80*		*0.84*	*3.02*	*Sqm*
		2		*0.63*	*0.84*	*1.05*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.90*		*0.35*	*2.01*	*Sqm*
		1	*2.90*	8.50		*24.65*	*Sqm*
		2		*8.50*	0.35	*5.90*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.34	*11.39*	*Sqm*
	Parapet	*4*	*9.90*		*0.18*	*6.93*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.90*		*0.25*	*9.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.90*		*0.55*	*21.78*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**247.10**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.25	0.70		*11.48*	*Cum*
	Right and left Return wall	4	1.90	1.30		*9.85*	*Cum*
	Extra slope	*2*	*10.142*	*0.598*	*1.195*	*14.48*	*Cum*
		2	*8.246*	*0.598*	*1.195*	*11.78*	*Cum*
	TOTAL					**47.59**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 10.719						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.43*	*1.28*	*6.91*	*Cum*
		1	*8.27*	*1.77*	*1.28*	*18.72*	*Cum*
	Extra for Slope (0.5:1)	*2*	*10.15*	*0.64*	*1.28*	*16.61*	*Cum*
	Left abutment	*2*	*1.89*	*1.43*	*1.28*	*6.91*	*Cum*
		1	*8.27*	*1.77*	*1.28*	*18.72*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.27*	*0.64*	*1.28*	*13.52*	*Cum*
	TOTAL					**81.38**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*8.27*	*1.77*	*0.20*	*2.93*	*Cum*
	Left abutment	*2*	*1.89*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*8.27*	*1.77*	*0.20*	*2.93*	*Cum*
	Levelling course	*2*	*3.50*	*8.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**12.77**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.27*	*1.57*	*0.20*	*2.60*	*Cum*
		1	*8.27*	*1.37*	*0.80*	*9.06*	*Cum*
		1	*8.27*	*0.90*	*0.50*	*3.70*	*Cum*
		1	*8.27*	*0.82*	*0.50*	*3.39*	*Cum*
	Return wall	*2*	*1.79*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.03*	*0.80*	*2.95*	*Cum*
		2	*1.79*	*0.52*	*0.77*	*1.42*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*8.27*	*1.57*	*0.20*	*2.60*	*Cum*
		1	*8.27*	*1.37*	*0.80*	*9.06*	*Cum*
		1	*8.27*	*0.90*	*0.50*	*3.70*	*Cum*
		1	*8.27*	*0.82*	*0.50*	*3.39*	*Cum*
	Return wall	*2*	*1.79*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.03*	*0.80*	*2.95*	*Cum*
		2	*1.79*	*0.52*	*0.77*	*1.42*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**48.42**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.70	8.50	0.35	*7.96*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	0.34	*19.93*	*Cum*
	Wearing coat	*1*	*9.70*	*7.50*	*0.08*	*5.46*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.70*	*0.44*	*0.18*	*1.51*	*Cum*
		2	*9.70*	*0.35*	*0.25*	*1.70*	*Cum*
		2	*9.70*	*0.22*	*0.55*	*2.34*	*Cum*
	TOTAL					**38.90**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*3.26*		*1.578*	*236.7*	*Kg*
a2	*10*	*15*	*84.50*		*0.616*	*781.4*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*3.12*		*0.616*	*55.8*	*Kg*
a5	*10*	*10*	*8.69*		*0.616*	*53.6*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*44*	*2.32*		*0.888*	*90.7*	*Kg*
x2	*16*	*44*	*1.27*		*1.578*	*88.5*	*Kg*
x3	*10*	*24*	*2.60*		*0.616*	*38.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*48.4*	*0.0025*	*0.121*	*7850.00*	*950.24*	*Kg*
	Total Reinforcement Steel (in kg)					*4382.2*	*Kg*
	Total Weight in Metric Tonne					**4.38**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.27*		*0.20*	*3.31*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*8.27*		*0.80*	*13.23*	*Sqm*
		2		*1.37*	*0.80*	*2.19*	*Sqm*
		2	*8.27*		*0.50*	*8.27*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*8.27*		*0.50*	*8.27*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.03*	*0.80*	*1.65*	*Sqm*
		2	*1.79*		*0.77*	*2.75*	*Sqm*
		2		*0.52*	*0.77*	*0.80*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.27*		*0.20*	*3.31*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*8.27*		*0.80*	*13.23*	*Sqm*
		2		*1.37*	*0.80*	*2.19*	*Sqm*
		2	*8.27*		*0.50*	*8.27*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*8.27*		*0.50*	*8.27*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.03*	*0.80*	*1.65*	*Sqm*
		2	*1.79*		*0.77*	*2.75*	*Sqm*
		2		*0.52*	*0.77*	*0.80*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.70*		*0.35*	*1.87*	*Sqm*
		1	*2.70*	8.50		*22.95*	*Sqm*
		2		*8.50*	0.35	*5.90*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.34	*11.39*	*Sqm*
	Parapet	*4*	*9.70*		*0.18*	*6.79*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.70*		*0.25*	*9.70*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.70*		*0.55*	*21.34*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**240.31**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.27	0.62		*10.32*	*Cum*
	Right and left Return wall	4	1.89	1.22		*9.22*	*Cum*
	Extra slope	*2*	*10.152*	*0.6395*	*1.279*	*16.61*	*Cum*
		2	*8.267*	*0.6395*	*1.279*	*13.52*	*Cum*
	TOTAL					**49.67**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR DEOKULI MR.						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.310						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.43*	*1.30*	*7.01*	*Cum*
		1	*5.02*	*1.77*	*1.30*	*11.55*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.90*	*0.65*	*1.30*	*11.67*	*Cum*
	Left abutment	*2*	*1.89*	*1.43*	*1.30*	*7.01*	*Cum*
		1	*5.02*	*1.77*	*1.30*	*11.55*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.02*	*0.65*	*1.30*	*8.48*	*Cum*
	TOTAL					**57.27**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.78*	*Cum*
	Left abutment	*2*	*1.89*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.78*	*Cum*
	Levelling course	*2*	*3.10*	*5.25*	*0.08*	*2.60*	*Cum*
	TOTAL					**8.32**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.02*	*1.57*	*0.20*	*1.58*	*Cum*
		1	*5.02*	*1.37*	*0.80*	*5.50*	*Cum*
		1	*5.02*	*0.90*	*0.50*	*2.25*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.79*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.03*	*0.80*	*2.94*	*Cum*
		2	*1.79*	*0.52*	*0.77*	*1.42*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.02*	*1.57*	*0.20*	*1.58*	*Cum*
		1	*5.02*	*1.37*	*0.80*	*5.50*	*Cum*
		1	*5.02*	*0.90*	*0.50*	*2.25*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.79*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.03*	*0.80*	*2.94*	*Cum*
		2	*1.79*	*0.52*	*0.77*	*1.42*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.67**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.25	2.70	0.34	*4.75*	*Cum*
	Approch Slab	*2*	*3.50*	*2.70*	0.34	*6.33*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*12.25*	*1.70*	*0.08*	*1.56*	*Cum*
	Parapet	*2*	*12.25*	*0.44*	*0.18*	*1.91*	*Cum*
		2	*12.25*	*0.35*	*0.25*	*2.15*	*Cum*
		2	*12.25*	*0.22*	*0.55*	*2.95*	*Cum*
	TOTAL					**19.65**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.16*		*1.578*	*144.6*	*Kg*
a2	*10*	*14*	*5.65*		*0.616*	*48.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.08*		*0.616*	*34.2*	*Kg*
a5	*10*	*10*	*5.55*		*0.616*	*34.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*44*	*2.32*		*0.888*	*90.7*	*Kg*
x2	*16*	*44*	*1.27*		*1.578*	*88.5*	*Kg*
x3	*10*	*24*	*2.60*		*0.616*	*38.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.7*	*0.0025*	*0.084*	*7850.00*	*660.79*	*Kg*
	Total Reinforcement Steel (in kg)					*2668.7*	*Kg*
	Total Weight in Metric Tonne					**2.67**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*5.02*		*0.80*	*8.03*	*Sqm*
		2		*1.37*	*0.80*	*2.19*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.03*	*0.80*	*1.65*	*Sqm*
		2	*1.79*		*0.77*	*2.75*	*Sqm*
		2		*0.52*	*0.77*	*0.79*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*5.02*		*0.80*	*8.03*	*Sqm*
		2		*1.37*	*0.80*	*2.19*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.03*	*0.80*	*1.65*	*Sqm*
		2	*1.79*		*0.77*	*2.75*	*Sqm*
		2		*0.52*	*0.77*	*0.79*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*5.25*		*0.34*	*3.52*	*Sqm*
		1	*5.25*	2.70		*14.18*	*Sqm*
		2		*2.70*	0.34	*1.81*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	2.70		*18.90*	*Sqm*
		4		*2.70*	0.34	*3.62*	*Sqm*
	Parapet	*4*	*12.25*		*0.18*	*8.58*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.25*		*0.25*	*12.25*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.25*		*0.55*	*26.95*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**164.67**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*2.70*	*0.40*		*2.16*	*Sqm*
	TOTAL					**2.16**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*2.70*			*5.40*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.02	0.67		*6.76*	*Cum*
	Right and left Return wall	4	1.89	1.17		*8.79*	*Cum*
	Extra slope	*2*	*6.904*	*0.65*	*1.3*	*11.67*	*Cum*
		2	*5.019*	*0.65*	*1.3*	*8.48*	*Cum*
	TOTAL					**35.70**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.510						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*1.20*	*6.38*	*Cum*
		1	*5.27*	*1.67*	*1.20*	*10.56*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.60*	*1.20*	*10.29*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*1.20*	*6.38*	*Cum*
		1	*5.27*	*1.67*	*1.20*	*10.56*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.60*	*1.20*	*10.29*	*Cum*
	TOTAL					**54.46**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**8.73**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.20**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.20	5.50	0.33	*3.97*	*Cum*
	Approch Slab	*2*	*3.50*	*5.50*	*0.30*	*11.55*	*Cum*
	Wearing coat	*1*	*9.20*	*4.50*	*0.08*	*3.11*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.20*	*0.44*	*0.18*	*1.43*	*Cum*
		2	*9.20*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.20*	*0.22*	*0.55*	*2.22*	*Cum*
	TOTAL					**23.89**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*31*	*2.86*		*1.578*	*139.9*	*Kg*
a2	*10*	*12*	*5.90*		*0.616*	*43.6*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.78*		*0.616*	*32.6*	*Kg*
a5	*10*	*9*	*5.80*		*0.616*	*32.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*40*	*2.32*		*0.888*	*82.4*	*Kg*
x2	*16*	*40*	*1.27*		*1.578*	*80.4*	*Kg*
x3	*12*	*24*	*2.30*		*0.888*	*49.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.20*	*0.0025*	*0.083*	*7850.00*	*651.492*	*Kg*
	Total Reinforcement Steel (in kg)					*2687.0*	*Kg*
	Total Weight in Metric Tonne					**2.69**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.20*		*0.33*	*1.44*	*Sqm*
		1	*2.20*	5.50		*12.10*	*Sqm*
		2		*5.50*	0.33	*3.61*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.30	*6.60*	*Sqm*
	Parapet	*4*	*9.20*		*0.18*	*6.44*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.20*		*0.25*	*9.20*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.20*		*0.55*	*20.24*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**172.49**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system.	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.28	0.70		*7.40*	*Cum*
	Right and left Return wall	4	1.88	1.20		*9.01*	*Cum*
	Extra slope	*2*	*7.147*	*0.6*	*1.2*	*10.29*	*Cum*
		2	*7.147*	*0.6*	*1.2*	*10.29*	*Cum*
	TOTAL					**36.99**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.290						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*1.15*	*6.11*	*Cum*
		1	*5.27*	*1.67*	*1.15*	*10.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.58*	*1.15*	*9.45*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*1.15*	*6.11*	*Cum*
		1	*5.27*	*1.67*	*1.15*	*10.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.58*	*1.15*	*9.45*	*Cum*
	TOTAL					**51.37**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**8.73**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.20**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.20	5.50	0.33	*3.97*	*Cum*
	Approch Slab	*2*	*3.50*	*5.50*	*0.30*	*11.55*	*Cum*
	Wearing coat	*1*	*9.20*	*4.50*	*0.08*	*3.11*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.20*	*0.44*	*0.18*	*1.43*	*Cum*
		2	*9.20*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.20*	*0.22*	*0.55*	*2.22*	*Cum*
	TOTAL					**23.89**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*31*	*2.86*		*1.578*	*139.9*	*Kg*
a2	*10*	*12*	*5.90*		*0.616*	*43.6*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.78*		*0.616*	*32.6*	*Kg*
a5	*10*	*9*	*5.80*		*0.616*	*32.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*40*	*2.32*		*0.888*	*82.4*	*Kg*
x2	*16*	*40*	*1.27*		*1.578*	*80.4*	*Kg*
x3	*12*	*24*	*2.30*		*0.888*	*49.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.20*	*0.0025*	*0.083*	*7850.00*	*651.492*	*Kg*
	Total Reinforcement Steel (in kg)					*2687.0*	*Kg*
	Total Weight in Metric Tonne					**2.69**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.20*		*0.33*	*1.44*	*Sqm*
		1	*2.20*	5.50		*12.10*	*Sqm*
		2		*5.50*	0.33	*3.61*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.30	*6.60*	*Sqm*
	Parapet	*4*	*9.20*		*0.18*	*6.44*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.20*		*0.25*	*9.20*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.20*		*0.55*	*20.24*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**172.49**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system.	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.28	0.80		*8.45*	*Cum*
	Right and left Return wall	4	1.88	1.25		*9.39*	*Cum*
	Extra slope	*2*	*7.147*	*0.575*	*1.15*	*9.45*	*Cum*
		2	*7.147*	*0.575*	*1.15*	*9.45*	*Cum*
	TOTAL					**36.74**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR THAKUR BIGHA MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.366						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*2.00*	*11.44*	*Cum*
		1	*3.71*	*1.84*	*2.00*	*13.62*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.63*	*1.00*	*2.00*	*22.51*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*2.00*	*11.44*	*Cum*
		1	*3.71*	*1.84*	*2.00*	*13.62*	*Cum*
	Extra for Slope (0.5:1)	*2*	*3.71*	*1.00*	*2.00*	*14.84*	*Cum*
	TOTAL					**87.46**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Levelling course	*2*	*4.00*	*3.50*	*0.08*	*2.24*	*Cum*
	TOTAL					**7.25**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**22.62**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.74	4.00	0.37	*5.51*	*Cum*
	Approch Slab	*2*	*3.50*	*4.00*	*0.30*	*8.40*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*10.74*	*3.00*	*0.08*	*2.42*	*Cum*
	Parapet	*2*	*10.74*	*0.44*	*0.18*	*1.67*	*Cum*
		2	*10.74*	*0.35*	*0.25*	*1.88*	*Cum*
		2	*10.74*	*0.22*	*0.55*	*2.59*	*Cum*
	TOTAL					**22.47**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*28*	*4.31*		*1.578*	*190.4*	*Kg*
a2	*10*	*19*	*4.50*		*0.616*	*52.7*	*Kg*
a3	*10*	*2*	*3.90*		*0.616*	*4.8*	*Kg*
a4	*10*	*16*	*4.23*		*0.616*	*41.7*	*Kg*
a5	*10*	*15*	*4.40*		*0.616*	*40.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*54*	*3.70*		*0.888*	*177.4*	*Kg*
c2	*12*	*46*	*4.20*		*0.888*	*171.5*	*Kg*
c3	*12*	*54*	*3.70*		*0.888*	*177.4*	*Kg*
c4	*12*	*46*	*3.70*		*0.888*	*151.1*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*116*	*2.37*		*0.888*	*244.2*	*Kg*
x2	*16*	*116*	*1.32*		*1.578*	*242.4*	*Kg*
x3	*12*	*24*	*3.65*		*0.888*	*77.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*22.62*	*0.0025*	*0.057*	*7850.00*	*443.946*	*Kg*
	Total Reinforcement Steel (in kg)					*2623.9*	*Kg*
	Total Weight in Metric Tonne					**2.62**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.74*		*0.37*	*2.76*	*Sqm*
		1	*3.74*	4.00		*14.94*	*Sqm*
		2		*4.00*	0.37	*2.95*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	4.00		*28.00*	*Sqm*
		4		*4.00*	0.30	*4.80*	*Sqm*
	Parapet	*4*	*10.74*		*0.18*	*7.51*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.74*		*0.25*	*10.74*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.74*		*0.55*	*23.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**166.61**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*4.00*	*0.40*		*3.20*	*Sqm*
	TOTAL					**3.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*4.00*			*8.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	3.71	1.08		*8.02*	*Cum*
	Right and left Return wall	4	1.92	1.15		*8.85*	*Cum*
	Extra slope	*2*	*5.627*	*1*	*2*	*22.51*	*Cum*
		2	*3.709*	*1*	*2*	*14.84*	*Cum*
	TOTAL					**54.21**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.676						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*2.15*	*12.30*	*Cum*
		1	*3.71*	*1.84*	*2.15*	*14.64*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.63*	*1.08*	*2.15*	*26.01*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*2.15*	*12.30*	*Cum*
		1	*3.71*	*1.84*	*2.15*	*14.64*	*Cum*
	Extra for Slope (0.5:1)	*2*	*3.71*	*1.08*	*2.15*	*17.14*	*Cum*
	TOTAL					**97.03**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Levelling course	*2*	*4.00*	*3.50*	*0.08*	*2.24*	*Cum*
	TOTAL					**7.25**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	Left abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**22.62**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.74	4.00	0.37	*5.51*	*Cum*
	Approch Slab	*2*	*3.50*	*4.00*	*0.30*	*8.40*	*Cum*
	Wearing coat	*1*	*10.74*	*3.00*	*0.08*	*2.42*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.74*	*0.44*	*0.18*	*1.67*	*Cum*
		2	*10.74*	*0.35*	*0.25*	*1.88*	*Cum*
		2	*10.74*	*0.22*	*0.55*	*2.59*	*Cum*
	TOTAL					**22.47**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*28*	*4.31*		*1.578*	*190.4*	*Kg*
a2	*10*	*19*	*4.50*		*0.616*	*52.7*	*Kg*
a3	*10*	*2*	*3.90*		*0.616*	*4.8*	*Kg*
a4	*10*	*16*	*4.23*		*0.616*	*41.7*	*Kg*
a5	*10*	*15*	*4.40*		*0.616*	*40.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*54*	*3.70*		*0.888*	*177.4*	*Kg*
c2	*12*	*46*	*4.20*		*0.888*	*171.5*	*Kg*
c3	*12*	*54*	*3.70*		*0.888*	*177.4*	*Kg*
c4	*12*	*46*	*3.70*		*0.888*	*151.1*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*116*	*2.37*		*0.888*	*244.2*	*Kg*
x2	*16*	*116*	*1.32*		*1.578*	*242.4*	*Kg*
x3	*12*	*24*	*3.65*		*0.888*	*77.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*22.62*	*0.0025*	*0.057*	*7850.00*	*443.946*	*Kg*
	Total Reinforcement Steel (in kg)					*2623.9*	*Kg*
	Total Weight in Metric Tonne					**2.62**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.74*		*0.37*	*2.76*	*Sqm*
		1	*3.74*	4.00		*14.94*	*Sqm*
		2		*4.00*	0.37	*2.95*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	4.00		*28.00*	*Sqm*
		4		*4.00*	0.30	*4.80*	*Sqm*
	Parapet	*4*	*10.74*		*0.18*	*7.51*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.74*		*0.25*	*10.74*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.74*		*0.55*	*23.62*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**166.61**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*4.00*	*0.40*		*3.20*	*Sqm*
	TOTAL					**3.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*4.00*			*8.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	3.71	1.18		*8.73*	*Cum*
	Right and left Return wall	4	1.92	1.23		*9.43*	*Cum*
	Extra slope	*2*	*5.627*	*1.075*	*2.15*	*26.01*	*Cum*
		2	*3.709*	*1.075*	*2.15*	*17.14*	*Cum*
	TOTAL					**61.32**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.109						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*1.15*	*6.11*	*Cum*
		1	*5.27*	*1.67*	*1.15*	*10.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.58*	*1.15*	*9.45*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*1.15*	*6.11*	*Cum*
		1	*5.27*	*1.67*	*1.15*	*10.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.58*	*1.15*	*9.45*	*Cum*
	TOTAL					**51.37**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.50*	*3.50*	*0.08*	*3.08*	*Cum*
	TOTAL					**8.73**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.20**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.20	5.50	0.33	*3.97*	*Cum*
	Approch Slab	*2*	*3.50*	*5.50*	*0.30*	*11.55*	*Cum*
	Wearing coat	*1*	*9.20*	*4.50*	*0.08*	*3.11*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.20*	*0.44*	*0.18*	*1.43*	*Cum*
		2	*9.20*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.20*	*0.22*	*0.55*	*2.22*	*Cum*
	TOTAL					**23.89**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*31*	*2.86*		*1.578*	*139.9*	*Kg*
a2	*10*	*12*	*5.90*		*0.616*	*43.6*	*Kg*
a3	*10*	*2*	*5.40*		*0.616*	*6.7*	*Kg*
a4	*10*	*19*	*2.78*		*0.616*	*32.6*	*Kg*
a5	*10*	*9*	*5.80*		*0.616*	*32.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c2	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
c3	*12*	*74*	*3.70*		*0.888*	*243.1*	*Kg*
c4	*12*	*46*	*5.70*		*0.888*	*232.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*40*	*2.32*		*0.888*	*82.4*	*Kg*
x2	*16*	*40*	*1.27*		*1.578*	*80.4*	*Kg*
x3	*12*	*24*	*2.30*		*0.888*	*49.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.20*	*0.0025*	*0.083*	*7850.00*	*651.492*	*Kg*
	Total Reinforcement Steel (in kg)					*2687.0*	*Kg*
	Total Weight in Metric Tonne					**2.69**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.20*		*0.33*	*1.44*	*Sqm*
		1	*2.20*	5.50		*12.10*	*Sqm*
		2		*5.50*	0.33	*3.61*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.50		*38.50*	*Sqm*
		4		*5.50*	0.30	*6.60*	*Sqm*
	Parapet	*4*	*9.20*		*0.18*	*6.44*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.20*		*0.25*	*9.20*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.20*		*0.55*	*20.24*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**172.49**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh)**						
		2	*5.50*	*0.40*		*4.40*	*Sqm*
	TOTAL					**4.40**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system.	*2*	*5.50*			*11.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.28	0.80		*8.45*	*Cum*
	Right and left Return wall	4	1.88	1.25		*9.39*	*Cum*
	Extra slope	*2*	*7.147*	*0.575*	*1.15*	*9.45*	*Cum*
		2	*7.147*	*0.575*	*1.15*	*9.45*	*Cum*
	TOTAL					**36.74**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR DADHPA SUB DY.						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.220						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.26*	*1.90*	*2.91*	*25.03*	*Cum*
		1	*6.40*	*2.23*	*2.91*	*41.43*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.66*	*1.90*	*2.91*	*95.83*	*Cum*
	Left abutment	*2*	*2.26*	*2.23*	*2.91*	*29.30*	*Cum*
		1	*6.40*	*2.23*	*2.91*	*41.43*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.40*	*1.46*	*2.91*	*54.19*	*Cum*
	TOTAL					**287.21**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.96*	*1.60*	*0.20*	*1.26*	*Cum*
		1	*6.10*	*1.93*	*0.20*	*2.35*	*Cum*
	Left abutment	*2*	*1.96*	*1.60*	*0.20*	*1.26*	*Cum*
		1	*6.10*	*1.93*	*0.20*	*2.35*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.85**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.10*	*1.73*	*0.20*	*2.10*	*Cum*
		1	*6.10*	*1.53*	*0.80*	*7.44*	*Cum*
		1	*6.10*	*1.07*	*1.02*	*6.64*	*Cum*
		1	*6.10*	*0.82*	*0.50*	*2.50*	*Cum*
	Return wall	*2*	*1.86*	*1.40*	*0.20*	*1.04*	*Cum*
		2	*1.86*	*1.20*	*0.80*	*3.58*	*Cum*
		2	*1.86*	*0.70*	*1.34*	*3.48*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.10*	*1.73*	*0.20*	*2.10*	*Cum*
		1	*6.10*	*1.53*	*0.80*	*7.44*	*Cum*
		1	*6.10*	*1.07*	*1.02*	*6.64*	*Cum*
		1	*6.10*	*0.82*	*0.50*	*2.50*	*Cum*
	Return wall	*2*	*1.86*	*1.40*	*0.20*	*1.04*	*Cum*
		2	*1.86*	*1.20*	*0.80*	*3.58*	*Cum*
		2	*1.86*	*0.70*	*1.34*	*3.48*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**54.02**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.66	6.50	0.55	*12.99*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*10.66*	*5.50*	*0.08*	*4.40*	*Cum*
	Parapet	*2*	*10.66*	*0.44*	*0.18*	*1.66*	*Cum*
		2	*10.66*	*0.35*	*0.25*	*1.87*	*Cum*
		2	*10.66*	*0.22*	*0.55*	*2.57*	*Cum*
	TOTAL					**37.13**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.22*		*1.578*	*306.3*	*Kg*
a2	*10*	*19*	*6.90*		*0.616*	*80.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*4.08*		*0.616*	*65.4*	*Kg*
a5	*10*	*15*	*5.74*		*0.616*	*53.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.71*		*0.888*	*274.0*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*60*	*2.37*		*0.888*	*126.3*	*Kg*
x2	*16*	*60*	*1.32*		*1.578*	*125.4*	*Kg*
x3	*12*	*24*	*3.56*		*0.888*	*75.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*54.02*	*0.0025*	*0.135*	*7850.00*	*#######*	*Kg*
	Total Reinforcement Steel (in kg)					*3621.7*	*Kg*
	Total Weight in Metric Tonne					**3.62**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.10*		*0.20*	*2.44*	*Sqm*
		2		*1.73*	*0.20*	*0.69*	*Sqm*
		2	*6.10*		*0.80*	*9.76*	*Sqm*
		2		*1.53*	*0.80*	*2.44*	*Sqm*
		2	*6.10*		*1.02*	*12.38*	*Sqm*
		2		*1.07*	*1.02*	*2.18*	*Sqm*
		2	*6.10*		*0.50*	*6.10*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.75*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.20*	*0.80*	*1.92*	*Sqm*
		2	*1.86*		*1.34*	*4.97*	*Sqm*
		2		*0.70*	*1.34*	*1.87*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.10*		*0.20*	*2.44*	*Sqm*
		2		*1.73*	*0.20*	*0.69*	*Sqm*
		2	*6.10*		*0.80*	*9.76*	*Sqm*
		2		*1.53*	*0.80*	*2.44*	*Sqm*
		2	*6.10*		*1.02*	*12.38*	*Sqm*
		2		*1.07*	*1.02*	*2.18*	*Sqm*
		2	*6.10*		*0.50*	*6.10*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.75*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.20*	*0.80*	*1.92*	*Sqm*
		2	*1.86*		*1.34*	*4.97*	*Sqm*
		2		*0.70*	*1.34*	*1.87*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.66*		*0.55*	*4.00*	*Sqm*
		1	*3.66*	6.50		*23.79*	*Sqm*
		2		*6.50*	0.55	*7.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*10.66*		*0.18*	*7.46*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.66*		*0.25*	*10.66*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.66*		*0.55*	*23.45*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**236.17**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			***13.00***	***RM***
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				**2.00**	**Nos**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.10	3.51		*42.84*	*Cum*
	Right and left Return wall	4	2.26	1.88		*16.97*	*Cum*
	Extra slope	*2*	*8.6615*	*1.901*	*2.91*	*95.83*	*Cum*
		2	*6.399*	*1.455*	*2.91*	*54.19*	*Cum*
	TOTAL					**209.82**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.070						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.26*	*1.90*	*2.85*	*24.52*	*Cum*
		1	*6.40*	*2.23*	*2.85*	*40.58*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.66*	*1.90*	*2.85*	*93.85*	*Cum*
	Left abutment	*2*	*2.26*	*2.23*	*2.85*	*28.69*	*Cum*
		1	*6.40*	*2.23*	*2.85*	*40.58*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.40*	*1.43*	*2.85*	*51.98*	*Cum*
	TOTAL					**280.19**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.96*	*1.60*	*0.20*	*1.26*	*Cum*
		1	*6.10*	*1.93*	*0.20*	*2.35*	*Cum*
	Left abutment	*2*	*1.96*	*1.60*	*0.20*	*1.26*	*Cum*
		1	*6.10*	*1.93*	*0.20*	*2.35*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.85**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.10*	*1.73*	*0.20*	*2.10*	*Cum*
		1	*6.10*	*1.53*	*0.80*	*7.44*	*Cum*
		1	*6.10*	*1.07*	*1.02*	*6.64*	*Cum*
		1	*6.10*	*0.82*	*0.50*	*2.50*	*Cum*
	Return wall	*2*	*1.86*	*1.40*	*0.20*	*1.04*	*Cum*
		2	*1.86*	*1.20*	*0.80*	*3.58*	*Cum*
		2	*1.86*	*0.70*	*1.34*	*3.48*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.10*	*1.73*	*0.20*	*2.10*	*Cum*
		1	*6.10*	*1.53*	*0.80*	*7.44*	*Cum*
		1	*6.10*	*1.07*	*1.02*	*6.64*	*Cum*
		1	*6.10*	*0.82*	*0.50*	*2.50*	*Cum*
	Return wall	*2*	*1.86*	*1.40*	*0.20*	*1.04*	*Cum*
		2	*1.86*	*1.20*	*0.80*	*3.58*	*Cum*
		2	*1.86*	*0.70*	*1.34*	*3.48*	*Cum*
		2	*1.86*	*0.40*	*0.15*	*0.22*	*Cum*
	TOTAL					**54.02**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.66	6.50	0.55	*12.99*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*
	Wearing coat	*1*	*10.66*	*5.50*	*0.08*	*4.40*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*10.66*	*0.44*	*0.18*	*1.66*	*Cum*
		2	*10.66*	*0.35*	*0.25*	*1.87*	*Cum*
		2	*10.66*	*0.22*	*0.55*	*2.57*	*Cum*
	TOTAL					**37.13**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.22*		*1.578*	*306.3*	*Kg*
a2	*10*	*19*	*6.90*		*0.616*	*80.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*4.08*		*0.616*	*65.4*	*Kg*
a5	*10*	*15*	*5.74*		*0.616*	*53.1*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.71*		*0.888*	*274.0*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*60*	*2.37*		*0.888*	*126.3*	*Kg*
x2	*16*	*60*	*1.32*		*1.578*	*125.4*	*Kg*
x3	*12*	*24*	*3.56*		*0.888*	*75.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*54.02*	*0.0025*	*0.135*	*7850.00*	*#######*	*Kg*
	Total Reinforcement Steel (in kg)					*3621.7*	*Kg*
	Total Weight in Metric Tonne					**3.62**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.10*		*0.20*	*2.44*	*Sqm*
		2		*1.73*	*0.20*	*0.69*	*Sqm*
		2	*6.10*		*0.80*	*9.76*	*Sqm*
		2		*1.53*	*0.80*	*2.44*	*Sqm*
		2	*6.10*		*1.02*	*12.38*	*Sqm*
		2		*1.07*	*1.02*	*2.18*	*Sqm*
		2	*6.10*		*0.50*	*6.10*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.75*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.20*	*0.80*	*1.92*	*Sqm*
		2	*1.86*		*1.34*	*4.97*	*Sqm*
		2		*0.70*	*1.34*	*1.87*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.10*		*0.20*	*2.44*	*Sqm*
		2		*1.73*	*0.20*	*0.69*	*Sqm*
		2	*6.10*		*0.80*	*9.76*	*Sqm*
		2		*1.53*	*0.80*	*2.44*	*Sqm*
		2	*6.10*		*1.02*	*12.38*	*Sqm*
		2		*1.07*	*1.02*	*2.18*	*Sqm*
		2	*6.10*		*0.50*	*6.10*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.86*		*0.20*	*0.75*	*Sqm*
		2		*1.40*	*0.20*	*0.56*	*Sqm*
		2	*1.86*		*0.80*	*2.98*	*Sqm*
		2		*1.20*	*0.80*	*1.92*	*Sqm*
		2	*1.86*		*1.34*	*4.97*	*Sqm*
		2		*0.70*	*1.34*	*1.87*	*Sqm*
		2	*1.86*		*0.15*	*0.56*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*3.66*		*0.55*	*4.00*	*Sqm*
		1	*3.66*	6.50		*23.79*	*Sqm*
		2		*6.50*	0.55	*7.10*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*10.66*		*0.18*	*7.46*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.66*		*0.25*	*10.66*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.66*		*0.55*	*23.45*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**236.17**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			***13.00***	***RM***
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				**2.00**	**Nos**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.10	2.83		*34.54*	*Cum*
	Right and left Return wall	4	2.26	1.72		*15.52*	*Cum*
	Extra slope	*2*	*8.6615*	*1.901*	*2.85*	*93.85*	*Cum*
		2	*6.399*	*1.425*	*2.85*	*51.98*	*Cum*
	TOTAL					**195.89**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 3.460						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.43*	*1.25*	*6.74*	*Cum*
		1	*5.02*	*1.77*	*1.25*	*11.10*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.90*	*0.63*	*1.25*	*10.79*	*Cum*
	Left abutment	*2*	*1.89*	*1.43*	*1.25*	*6.74*	*Cum*
		1	*5.02*	*1.77*	*1.25*	*11.10*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.02*	*0.63*	*1.25*	*7.84*	*Cum*
	TOTAL					**54.33**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.89*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.78*	*Cum*
	Left abutment	*2*	*1.89*	*1.43*	*0.20*	*1.08*	*Cum*
		1	*5.02*	*1.77*	*0.20*	*1.78*	*Cum*
	Levelling course	*2*	*3.10*	*5.25*	*0.08*	*2.60*	*Cum*
	TOTAL					**8.32**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.02*	*1.57*	*0.20*	*1.58*	*Cum*
		1	*5.02*	*1.37*	*0.80*	*5.50*	*Cum*
		1	*5.02*	*0.90*	*0.50*	*2.25*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.79*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.03*	*0.80*	*2.94*	*Cum*
		2	*1.79*	*0.52*	*0.77*	*1.42*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.02*	*1.57*	*0.20*	*1.58*	*Cum*
		1	*5.02*	*1.37*	*0.80*	*5.50*	*Cum*
		1	*5.02*	*0.90*	*0.50*	*2.25*	*Cum*
		1	*5.02*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.79*	*1.23*	*0.20*	*0.88*	*Cum*
		2	*1.79*	*1.03*	*0.80*	*2.94*	*Cum*
		2	*1.79*	*0.52*	*0.77*	*1.42*	*Cum*
		2	*1.79*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**33.67**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	5.25	2.70	0.34	*4.75*	*Cum*
	Approch Slab	*2*	*3.50*	*2.70*	0.34	*6.33*	*Cum*
	Wearing coat	*1*	*12.25*	*1.70*	*0.08*	*1.56*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*12.25*	*0.44*	*0.18*	*1.91*	*Cum*
		2	*12.25*	*0.35*	*0.25*	*2.15*	*Cum*
		2	*12.25*	*0.22*	*0.55*	*2.95*	*Cum*
	TOTAL					**19.65**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*3.16*		*1.578*	*144.6*	*Kg*
a2	*10*	*14*	*5.65*		*0.616*	*48.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*3.08*		*0.616*	*34.2*	*Kg*
a5	*10*	*10*	*5.55*		*0.616*	*34.2*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*44*	*2.32*		*0.888*	*90.7*	*Kg*
x2	*16*	*44*	*1.27*		*1.578*	*88.5*	*Kg*
x3	*10*	*24*	*2.60*		*0.616*	*38.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*33.7*	*0.0025*	*0.084*	*7850.00*	*660.79*	*Kg*
	Total Reinforcement Steel (in kg)					*2668.7*	*Kg*
	Total Weight in Metric Tonne					**2.67**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*5.02*		*0.80*	*8.03*	*Sqm*
		2		*1.37*	*0.80*	*2.19*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.03*	*0.80*	*1.65*	*Sqm*
		2	*1.79*		*0.77*	*2.75*	*Sqm*
		2		*0.52*	*0.77*	*0.79*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.02*		*0.20*	*2.01*	*Sqm*
		2		*1.57*	*0.20*	*0.63*	*Sqm*
		2	*5.02*		*0.80*	*8.03*	*Sqm*
		2		*1.37*	*0.80*	*2.19*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.90*	*0.50*	*0.90*	*Sqm*
		2	*5.02*		*0.50*	*5.02*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.79*		*0.20*	*0.71*	*Sqm*
		2		*1.23*	*0.20*	*0.49*	*Sqm*
		2	*1.79*		*0.80*	*2.86*	*Sqm*
		2		*1.03*	*0.80*	*1.65*	*Sqm*
		2	*1.79*		*0.77*	*2.75*	*Sqm*
		2		*0.52*	*0.77*	*0.79*	*Sqm*
		2	*1.79*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*5.25*		*0.34*	*3.52*	*Sqm*
		1	*5.25*	2.70		*14.18*	*Sqm*
		2		*2.70*	0.34	*1.81*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	2.70		*18.90*	*Sqm*
		4		*2.70*	0.34	*3.62*	*Sqm*
	Parapet	*4*	*12.25*		*0.18*	*8.58*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*12.25*		*0.25*	*12.25*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*12.25*		*0.55*	*26.95*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**164.67**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*2.70*	*0.40*		*2.16*	*Sqm*
	TOTAL					**2.16**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*2.70*			*5.40*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.02	0.67		*6.76*	*Cum*
	Right and left Return wall	4	1.89	1.17		*8.79*	*Cum*
	Extra slope	*2*	*6.904*	*0.625*	*1.25*	*10.79*	*Cum*
		2	*5.019*	*0.625*	*1.25*	*7.84*	*Cum*
	TOTAL					**34.18**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.878						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*100.00*			**100.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.17*	*1.70*	*1.20*	*8.82*	*Cum*
		1	*8.61*	*2.03*	*1.20*	*21.02*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.77*	*0.60*	*1.20*	*7.77*	*Cum*
	Left abutment	*2*	*2.17*	*2.03*	*1.20*	*10.59*	*Cum*
		1	*8.61*	*2.03*	*1.20*	*21.02*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.77*	*0.60*	*1.20*	*7.77*	*Cum*
	TOTAL					**76.99**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.87*	*1.40*	*0.20*	*1.04*	*Cum*
		1	*8.31*	*1.73*	*0.20*	*2.88*	*Cum*
	Left abutment	*2*	*1.87*	*1.40*	*0.20*	*1.04*	*Cum*
		1	*8.31*	*1.73*	*0.20*	*2.88*	*Cum*
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**12.60**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.31*	*1.53*	*0.20*	*2.55*	*Cum*
		1	*8.31*	*1.33*	*0.80*	*8.86*	*Cum*
		1	*8.31*	*0.88*	*0.38*	*2.77*	*Cum*
		1	*8.31*	*0.82*	*0.50*	*3.41*	*Cum*
	Return wall	*2*	*1.77*	*1.20*	*0.20*	*0.84*	*Cum*
		2	*1.77*	*1.00*	*0.80*	*2.81*	*Cum*
		2	*1.77*	*0.50*	*0.65*	*1.14*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*8.31*	*1.53*	*0.20*	*2.55*	*Cum*
		1	*8.31*	*1.33*	*0.80*	*8.86*	*Cum*
		1	*8.31*	*0.88*	*0.38*	*2.77*	*Cum*
		1	*8.31*	*0.82*	*0.50*	*3.41*	*Cum*
	Return wall	*2*	*1.77*	*1.20*	*0.20*	*0.84*	*Cum*
		2	*1.77*	*1.00*	*0.80*	*2.81*	*Cum*
		2	*1.77*	*0.50*	*0.65*	*1.14*	*Cum*
		2	*1.77*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**45.19**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.18	8.50	0.39	*7.24*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	*0.30*	*17.85*	*Cum*
	Wearing coat	*1*	*9.18*	*7.50*	*0.08*	*5.16*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.18*	*0.44*	*0.18*	*1.43*	*Cum*
		2	*9.18*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.18*	*0.22*	*0.55*	*2.21*	*Cum*
	TOTAL					**35.50**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*2.74*		*1.578*	*198.9*	*Kg*
a2	*10*	*11*	*8.90*		*0.616*	*60.4*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*2.60*		*0.616*	*46.5*	*Kg*
a5	*10*	*8*	*8.69*		*0.616*	*42.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*36*	*2.37*		*0.888*	*75.8*	*Kg*
x2	*16*	*36*	*1.32*		*1.578*	*75.2*	*Kg*
x3	*10*	*24*	*2.08*		*0.616*	*30.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*45.2*	*0.0025*	*0.113*	*7850.00*	*886.91*	*Kg*
	Total Reinforcement Steel (in kg)					*3459.8*	*Kg*
	Total Weight in Metric Tonne					**3.46**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.31*		*0.20*	*3.32*	*Sqm*
		2		*1.53*	*0.20*	*0.61*	*Sqm*
		2	*8.31*		*0.80*	*13.29*	*Sqm*
		2		*1.33*	*0.80*	*2.13*	*Sqm*
		2	*8.31*		*0.38*	*6.31*	*Sqm*
		2		*0.88*	*0.38*	*0.67*	*Sqm*
		2	*8.31*		*0.50*	*8.31*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.20*	*0.20*	*0.48*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.00*	*0.80*	*1.59*	*Sqm*
		2	*1.77*		*0.65*	*2.30*	*Sqm*
		2		*0.50*	*0.65*	*0.65*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.31*		*0.20*	*3.32*	*Sqm*
		2		*1.53*	*0.20*	*0.61*	*Sqm*
		2	*8.31*		*0.80*	*13.29*	*Sqm*
		2		*1.33*	*0.80*	*2.13*	*Sqm*
		2	*8.31*		*0.38*	*6.31*	*Sqm*
		2		*0.88*	*0.38*	*0.67*	*Sqm*
		2	*8.31*		*0.50*	*8.31*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.77*		*0.20*	*0.71*	*Sqm*
		2		*1.20*	*0.20*	*0.48*	*Sqm*
		2	*1.77*		*0.80*	*2.83*	*Sqm*
		2		*1.00*	*0.80*	*1.59*	*Sqm*
		2	*1.77*		*0.65*	*2.30*	*Sqm*
		2		*0.50*	*0.65*	*0.65*	*Sqm*
		2	*1.77*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.18*		*0.39*	*1.70*	*Sqm*
		1	*2.18*	8.50		*18.53*	*Sqm*
		2		*8.50*	0.39	*6.64*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.30	*10.20*	*Sqm*
	Parapet	*4*	*9.18*		*0.18*	*6.43*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.18*		*0.25*	*9.18*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.18*		*0.55*	*20.20*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**227.04**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.31	0.56		*9.32*	*Cum*
	Right and left Return wall	4	2.17	1.09		*9.47*	*Cum*
	Extra slope	*1*	*10.772*	*0.6005*	*1.201*	*7.77*	*Cum*
		1	*10.772*	*0.6005*	*1.201*	*7.77*	*Cum*
	TOTAL					**34.32**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 6.040						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	TOTAL					**65.00**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Levelling course	*2*	*5.25*	*2.00*	*0.08*	*1.68*	*Cum*
	TOTAL					**1.68**	**Cum**
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.10	5.25	0.39	*2.26*	*Cum*
	Approch Slab	*2*	*2.00*	*5.25*	*0.30*	*6.30*	*Cum*
	Wearing coat	*1*	*5.10*	*4.25*	*0.08*	*1.63*	*Cum*
	Parapet	*2*	*5.10*	*0.44*	*0.18*	*0.79*	*Cum*
		2	*5.10*	*0.35*	*0.25*	*0.90*	*Cum*
		2	*5.10*	*0.22*	*0.55*	*1.23*	*Cum*
	TOTAL					**13.10**	**Cum**
5	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*1.52*		*1.578*	*69.6*	*Kg*
a2	*10*	*6*	*5.57*		*0.616*	*20.6*	*Kg*
a3	*10*	*2*	*5.09*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*1.48*		*0.616*	*16.4*	*Kg*
a5	*10*	*4*	*5.55*		*0.616*	*13.7*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c2	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
c3	*12*	*86*	*2.20*		*0.888*	*168.0*	*Kg*
c4	*12*	*26*	*5.45*		*0.888*	*125.8*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*14*	*2.32*		*0.888*	*28.8*	*Kg*
x2	*16*	*14*	*1.27*		*1.578*	*28.1*	*Kg*
x3	*10*	*24*	*1.00*		*0.616*	*14.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*64*	*2.32*		*0.888*	*131.9*	*Kg*
y2	*16*	*64*	*1.27*		*1.578*	*128.7*	*Kg*
y3	*10*	*48*	*1.90*		*0.616*	*56.2*	*Kg*
	Total Reinforcement Steel (in kg)					*1102.6*	*Kg*
	Total Weight in Metric Tonne					**1.10**	**MT**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
6	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Slab	*2*	*1.10*		*0.39*	*0.86*	*Sqm*
		1	*1.10*	5.25		*5.78*	*Sqm*
		2		*5.25*	0.39	*4.10*	*Sqm*
	Approch Slab	*4*	*2.00*		*0.30*	*2.40*	*Sqm*
		2	*2.00*	5.25		*21.00*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*5.10*		*0.18*	*3.57*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*5.10*		*0.25*	*5.10*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*5.10*		*0.55*	*11.22*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**61.47**	**Sqm**
7	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	4				**4.00**	**No.**
8	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
9	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*5.25*			*10.50*	*RM*
10	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
11	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	TOTAL					**30.00**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.400						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*110.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.99*	*1.21*	*3.96*	*Cum*
		1	*4.66*	*1.33*	*1.21*	*7.47*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.33*	*0.60*	*1.21*	*9.23*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*1.15*	*6.11*	*Cum*
		1	*5.27*	*1.67*	*1.15*	*10.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.58*	*1.15*	*9.45*	*Cum*
	TOTAL					**46.34**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.99*	*0.20*	*0.66*	*Cum*
		1	*4.66*	*1.33*	*0.20*	*1.24*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**7.65**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.19*	*1.13*	*0.20*	*1.17*	*Cum*
		1	*5.19*	*1.13*	*0.80*	*4.67*	*Cum*
		1	*5.19*	*0.87*	*0.35*	*1.58*	*Cum*
		1	*5.19*	*0.82*	*0.50*	*2.13*	*Cum*
	Return wall	*2*	*1.56*	*0.79*	*0.20*	*0.49*	*Cum*
		2	*1.56*	*0.79*	*0.80*	*1.97*	*Cum*
		2	*1.56*	*0.49*	*0.62*	*0.96*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**29.75**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.90	5.25	0.33	*3.26*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*8.90*	*4.25*	*0.08*	*2.84*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*8.90*	*0.44*	*0.18*	*1.38*	*Cum*
		2	*8.90*	*0.35*	*0.25*	*1.56*	*Cum*
		2	*8.90*	*0.22*	*0.55*	*2.14*	*Cum*
	TOTAL					**22.21**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.36*		*1.578*	*108.0*	*Kg*
a2	*10*	*10*	*5.65*		*0.616*	*34.8*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.28*		*0.616*	*25.3*	*Kg*
a5	*10*	*7*	*5.55*		*0.616*	*23.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*32*	*2.32*		*0.888*	*65.9*	*Kg*
x2	*16*	*32*	*1.27*		*1.578*	*64.3*	*Kg*
x3	*12*	*24*	*1.80*		*0.888*	*38.3*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*29.75*	*0.0025*	*0.074*	*7850.00*	*583.752*	*Kg*
	Total Reinforcement Steel (in kg)					*2472.8*	*Kg*
	Total Weight in Metric Tonne					**2.47**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.19*		*0.20*	*2.08*	*Sqm*
		2		*1.13*	*0.20*	*0.45*	*Sqm*
		2	*5.19*		*0.80*	*8.30*	*Sqm*
		2		*1.13*	*0.80*	*1.80*	*Sqm*
		2	*5.19*		*0.35*	*3.63*	*Sqm*
		2		*0.87*	*0.35*	*0.61*	*Sqm*
		2	*5.19*		*0.50*	*5.19*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.63*	*Sqm*
		2		*0.79*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.50*	*Sqm*
		2		*0.79*	*0.80*	*1.26*	*Sqm*
		2	*1.56*		*0.62*	*1.94*	*Sqm*
		2		*0.49*	*0.62*	*0.61*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*1.90*		*0.33*	*1.24*	*Sqm*
		1	*1.90*	5.25		*9.98*	*Sqm*
		2		*5.25*	0.33	*3.43*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*8.90*		*0.18*	*6.23*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.90*		*0.25*	*8.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.90*		*0.55*	*19.58*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**162.97**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system.	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.19	0.39		*3.99*	*Cum*
	Right and left Return wall	4	1.66	0.59		*3.95*	*Cum*
	Extra slope	*2*	*6.327*	*0.604*	*1.208*	*9.23*	*Cum*
		2	*7.147*	*0.575*	*1.15*	*9.45*	*Cum*
	TOTAL					**26.63**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 4.024						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*1.45*	*7.73*	*Cum*
		1	*5.03*	*1.76*	*1.45*	*12.87*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.91*	*0.73*	*1.45*	*14.60*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*1.15*	*6.11*	*Cum*
		1	*5.27*	*1.67*	*1.15*	*10.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.15*	*0.58*	*1.15*	*9.45*	*Cum*
	TOTAL					**60.88**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.03*	*1.76*	*0.20*	*1.77*	*Cum*
	Left abutment	*2*	*1.88*	*1.42*	*0.20*	*1.06*	*Cum*
		1	*5.27*	*1.67*	*0.20*	*1.76*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**8.60**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.03*	*1.56*	*0.20*	*1.57*	*Cum*
		1	*5.03*	*1.36*	*0.80*	*5.47*	*Cum*
		1	*5.03*	*0.89*	*0.45*	*2.01*	*Cum*
		1	*5.03*	*0.82*	*0.50*	*2.06*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.87*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*5.28*	*1.46*	*0.20*	*1.54*	*Cum*
		1	*5.28*	*1.31*	*0.80*	*5.52*	*Cum*
		1	*5.28*	*0.89*	*0.45*	*2.11*	*Cum*
		1	*5.28*	*0.82*	*0.50*	*2.17*	*Cum*
	Return wall	*2*	*1.78*	*1.22*	*0.20*	*0.86*	*Cum*
		2	*1.78*	*1.02*	*0.80*	*2.89*	*Cum*
		2	*1.78*	*0.51*	*0.72*	*1.30*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**32.99**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.15	5.25	0.33	*3.69*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*9.15*	*4.25*	*0.08*	*2.92*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.15*	*0.44*	*0.18*	*1.42*	*Cum*
		2	*9.15*	*0.35*	*0.25*	*1.61*	*Cum*
		2	*9.15*	*0.22*	*0.55*	*2.20*	*Cum*
	TOTAL					**22.86**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.61*		*1.578*	*119.4*	*Kg*
a2	*10*	*11*	*5.65*		*0.616*	*38.3*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.53*		*0.616*	*28.1*	*Kg*
a5	*10*	*8*	*5.55*		*0.616*	*27.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*36*	*2.32*		*0.888*	*74.2*	*Kg*
x2	*16*	*36*	*1.27*		*1.578*	*72.4*	*Kg*
x3	*12*	*24*	*2.30*		*0.888*	*49.0*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*32.99*	*0.0025*	*0.082*	*7850.00*	*647.478*	*Kg*
	Total Reinforcement Steel (in kg)					*2584.6*	*Kg*
	Total Weight in Metric Tonne					**2.58**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.03*		*0.20*	*2.01*	*Sqm*
		2		*1.56*	*0.20*	*0.62*	*Sqm*
		2	*5.03*		*0.80*	*8.05*	*Sqm*
		2		*1.36*	*0.80*	*2.17*	*Sqm*
		2	*5.03*		*0.45*	*4.53*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.03*		*0.50*	*5.03*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.28*		*0.20*	*2.11*	*Sqm*
		2		*1.46*	*0.20*	*0.58*	*Sqm*
		2	*5.28*		*0.80*	*8.45*	*Sqm*
		2		*1.31*	*0.80*	*2.09*	*Sqm*
		2	*5.28*		*0.45*	*4.76*	*Sqm*
		2		*0.89*	*0.45*	*0.80*	*Sqm*
		2	*5.28*		*0.50*	*5.28*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.22*	*0.20*	*0.49*	*Sqm*
		2	*1.78*		*0.80*	*2.84*	*Sqm*
		2		*1.02*	*0.80*	*1.63*	*Sqm*
		2	*1.78*		*0.72*	*2.56*	*Sqm*
		2		*0.51*	*0.72*	*0.73*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.15*		*0.33*	*1.40*	*Sqm*
		1	*2.15*	5.25		*11.29*	*Sqm*
		2		*5.25*	0.33	*3.43*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*9.15*		*0.18*	*6.41*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.15*		*0.25*	*9.15*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.15*		*0.55*	*20.13*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**168.37**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh)**						
		2	*5.25*	*0.40*		*4.20*	*Sqm*
	TOTAL					**4.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system.	*2*	*5.25*			*10.50*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.03	0.60		*6.02*	*Cum*
	Right and left Return wall	4	1.88	1.17		*8.77*	*Cum*
	Extra slope	*2*	*6.914*	*0.7265*	*1.453*	*14.60*	*Cum*
		2	*7.147*	*0.575*	*1.15*	*9.45*	*Cum*
	TOTAL					**38.84**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 2.900						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**110.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.18*	*1.74*	*1.50*	*11.36*	*Cum*
		1	*6.56*	*2.06*	*1.50*	*20.26*	*Cum*
	Extra for Slope (0.5:1)	*2*	*8.74*	*1.74*	*1.50*	*45.51*	*Cum*
	Left abutment	*2*	*2.18*	*2.06*	*1.50*	*13.47*	*Cum*
		1	*6.56*	*2.06*	*1.50*	*20.26*	*Cum*
	Extra for Slope (0.5:1)	*2*	*6.56*	*0.75*	*1.50*	*14.68*	*Cum*
	TOTAL					**125.54**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.88*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*6.26*	*1.76*	*0.20*	*2.21*	*Cum*
	Left abutment	*2*	*1.88*	*1.44*	*0.20*	*1.08*	*Cum*
		1	*6.26*	*1.76*	*0.20*	*2.21*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.23**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.26*	*1.56*	*0.20*	*1.96*	*Cum*
		1	*6.26*	*1.36*	*0.80*	*6.83*	*Cum*
		1	*6.26*	*0.99*	*0.48*	*2.98*	*Cum*
		1	*6.26*	*0.82*	*0.55*	*2.82*	*Cum*
	Return wall	*2*	*1.78*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.05*	*0.80*	*3.00*	*Cum*
		2	*1.78*	*0.52*	*0.80*	*1.48*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	Left abutment	*1*	*6.26*	*1.56*	*0.20*	*1.96*	*Cum*
		1	*6.26*	*1.36*	*0.80*	*6.83*	*Cum*
		1	*6.26*	*0.99*	*0.48*	*2.98*	*Cum*
		1	*6.26*	*0.82*	*0.55*	*2.82*	*Cum*
	Return wall	*2*	*1.78*	*1.24*	*0.20*	*0.88*	*Cum*
		2	*1.78*	*1.05*	*0.80*	*3.00*	*Cum*
		2	*1.78*	*0.52*	*0.80*	*1.48*	*Cum*
		2	*1.78*	*0.40*	*0.15*	*0.21*	*Cum*
	TOTAL					**40.35**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	2.98	6.50	0.42	*8.18*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*
	Wearing coat	*1*	*9.98*	*5.50*	*0.08*	*4.12*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*9.98*	*0.44*	*0.18*	*1.55*	*Cum*
		2	*9.98*	*0.35*	*0.25*	*1.75*	*Cum*
		2	*9.98*	*0.22*	*0.55*	*2.40*	*Cum*
	TOTAL					**31.66**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*3.54*		*1.578*	*257.0*	*Kg*
a2	*10*	*15*	*6.90*		*0.616*	*63.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*3.40*		*0.616*	*54.5*	*Kg*
a5	*10*	*12*	*6.69*		*0.616*	*49.5*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*50*	*2.37*		*0.888*	*105.2*	*Kg*
x2	*16*	*50*	*1.32*		*1.578*	*104.5*	*Kg*
x3	*12*	*24*	*2.88*		*0.888*	*61.4*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*40.35*	*0.0025*	*0.101*	*7850.00*	*791.785*	*Kg*
	Total Reinforcement Steel (in kg)					*3215.6*	*Kg*
	Total Weight in Metric Tonne					**3.22**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.26*		*0.20*	*2.50*	*Sqm*
		2		*1.56*	*0.20*	*0.63*	*Sqm*
		2	*6.26*		*0.80*	*10.02*	*Sqm*
		2		*1.36*	*0.80*	*2.18*	*Sqm*
		2	*6.26*		*0.48*	*6.01*	*Sqm*
		2		*0.99*	*0.48*	*0.95*	*Sqm*
		2	*6.26*		*0.55*	*6.89*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.05*	*0.80*	*1.68*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*0.52*	*0.80*	*0.83*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.26*		*0.20*	*2.50*	*Sqm*
		2		*1.56*	*0.20*	*0.63*	*Sqm*
		2	*6.26*		*0.80*	*10.02*	*Sqm*
		2		*1.36*	*0.80*	*2.18*	*Sqm*
		2	*6.26*		*0.48*	*6.01*	*Sqm*
		2		*0.99*	*0.48*	*0.95*	*Sqm*
		2	*6.26*		*0.55*	*6.89*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.78*		*0.20*	*0.71*	*Sqm*
		2		*1.24*	*0.20*	*0.50*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*1.05*	*0.80*	*1.68*	*Sqm*
		2	*1.78*		*0.80*	*2.85*	*Sqm*
		2		*0.52*	*0.80*	*0.83*	*Sqm*
		2	*1.78*		*0.15*	*0.53*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*2.98*		*0.42*	*2.52*	*Sqm*
		1	*2.98*	6.50		*19.37*	*Sqm*
		2		*6.50*	0.42	*5.49*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*9.98*		*0.18*	*6.99*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*9.98*		*0.25*	*9.98*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*9.98*		*0.55*	*21.96*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**205.26**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			***13.00***	***RM***
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				**2.00**	**Nos**
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.26	0.63		*7.86*	*Cum*
	Right and left Return wall	4	2.18	1.25		*10.93*	*Cum*
	Extra slope	*2*	*8.742*	*1.74*	*1.496*	*45.51*	*Cum*
		2	*6.56*	*0.748*	*1.496*	*14.68*	*Cum*
	TOTAL					**78.98**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	DETAILS OF QUANTITIES FOR IGUNI MINOR						
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 0.810						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*1.51*	*8.63*	*Cum*
		1	*3.71*	*1.84*	*1.51*	*10.28*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.63*	*0.75*	*1.51*	*12.81*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*1.51*	*8.63*	*Cum*
		1	*3.71*	*1.84*	*1.51*	*10.28*	*Cum*
	Extra for Slope (0.5:1)	*2*	*3.71*	*0.75*	*1.51*	*8.45*	*Cum*
	TOTAL					**59.07**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.98*	*0.20*	*0.65*	*Cum*
		1	*4.67*	*1.84*	*0.20*	*1.72*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**7.81**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.67*	*1.12*	*0.20*	*1.04*	*Cum*
		1	*4.67*	*1.12*	*0.80*	*4.17*	*Cum*
		1	*4.67*	*0.87*	*0.32*	*1.30*	*Cum*
		1	*4.67*	*0.82*	*0.45*	*1.72*	*Cum*
	Return wall	*2*	*1.56*	*0.78*	*0.20*	*0.48*	*Cum*
		2	*1.56*	*0.78*	*0.80*	*1.94*	*Cum*
		2	*1.56*	*0.49*	*0.59*	*0.90*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**19.53**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.82	5.25	0.39	*3.72*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*8.82*	*4.25*	*0.08*	*2.81*	*Cum*
	Parapet	*2*	*8.82*	*0.44*	*0.18*	*1.37*	*Cum*
		2	*8.82*	*0.35*	*0.25*	*1.55*	*Cum*
		2	*8.82*	*0.22*	*0.55*	*2.12*	*Cum*
	TOTAL					**22.60**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.28*		*1.578*	*104.3*	*Kg*
a2	*10*	*9*	*5.65*		*0.616*	*31.3*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.20*		*0.616*	*24.4*	*Kg*
a5	*10*	*6*	*5.55*		*0.616*	*20.5*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*30*	*2.37*		*0.888*	*63.1*	*Kg*
x2	*16*	*30*	*1.32*		*1.578*	*62.7*	*Kg*
x3	*12*	*24*	*3.65*		*0.888*	*77.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*19.53*	*0.0025*	*0.049*	*7850.00*	*383.260*	*Kg*
	Total Reinforcement Steel (in kg)					*2286.7*	*Kg*
	Total Weight in Metric Tonne					**2.29**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.67*		*0.20*	*1.87*	*Sqm*
		2		*1.12*	*0.20*	*0.45*	*Sqm*
		2	*4.67*		*0.80*	*7.48*	*Sqm*
		2		*1.12*	*0.80*	*1.79*	*Sqm*
		2	*4.67*		*0.32*	*2.99*	*Sqm*
		2		*0.87*	*0.32*	*0.56*	*Sqm*
		2	*4.67*		*0.45*	*4.21*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.78*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.78*	*0.80*	*1.24*	*Sqm*
		2	*1.56*		*0.59*	*1.84*	*Sqm*
		2		*0.49*	*0.59*	*0.58*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*1.82*		*0.39*	*1.42*	*Sqm*
		1	*1.82*	5.25		*9.56*	*Sqm*
		2		*5.25*	0.39	*4.08*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*8.82*		*0.18*	*6.17*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.82*		*0.25*	*8.82*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.82*		*0.55*	*19.40*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**158.56**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*4.00*	*0.40*		*3.20*	*Sqm*
	TOTAL					**3.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*4.00*			*8.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.67	0.37		*3.49*	*Cum*
	Right and left Return wall	4	1.92	0.57		*4.40*	*Cum*
	Extra slope	*2*	*5.627*	*0.7545*	*1.509*	*12.81*	*Cum*
		2	*3.709*	*0.7545*	*1.509*	*8.45*	*Cum*
	TOTAL					**29.15**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 1.000						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*70.00*			**70.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.49*	*1.26*	*7.22*	*Cum*
		1	*3.71*	*1.84*	*1.26*	*8.60*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.63*	*0.63*	*1.26*	*8.98*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*1.26*	*7.22*	*Cum*
		1	*3.71*	*1.84*	*1.26*	*8.60*	*Cum*
	Extra for Slope (0.5:1)	*2*	*3.71*	*0.63*	*1.26*	*5.92*	*Cum*
	TOTAL					**46.54**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.98*	*0.20*	*0.65*	*Cum*
		1	*4.67*	*1.84*	*0.20*	*1.72*	*Cum*
	Left abutment	*2*	*1.92*	*1.49*	*0.20*	*1.14*	*Cum*
		1	*3.71*	*1.84*	*0.20*	*1.36*	*Cum*
	Levelling course	*2*	*5.25*	*3.50*	*0.08*	*2.94*	*Cum*
	TOTAL					**7.81**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*4.67*	*1.12*	*0.20*	*1.04*	*Cum*
		1	*4.67*	*1.12*	*0.80*	*4.17*	*Cum*
		1	*4.67*	*0.87*	*0.32*	*1.30*	*Cum*
		1	*4.67*	*0.82*	*0.45*	*1.72*	*Cum*
	Return wall	*2*	*1.56*	*0.78*	*0.20*	*0.48*	*Cum*
		2	*1.56*	*0.78*	*0.80*	*1.94*	*Cum*
		2	*1.56*	*0.49*	*0.59*	*0.90*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*3.71*	*1.64*	*0.20*	*1.21*	*Cum*
		1	*3.71*	*1.44*	*0.80*	*4.26*	*Cum*
		1	*3.71*	*0.93*	*0.75*	*2.58*	*Cum*
		1	*3.71*	*0.82*	*0.45*	*1.37*	*Cum*
	Return wall	*2*	*1.92*	*1.29*	*0.20*	*0.99*	*Cum*
		2	*1.92*	*1.09*	*0.80*	*3.35*	*Cum*
		2	*1.92*	*0.55*	*0.97*	*2.03*	*Cum*
		2	*1.92*	*0.40*	*0.15*	*0.23*	*Cum*
	TOTAL					**19.53**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.82	5.25	0.39	*3.72*	*Cum*
	Approch Slab	*2*	*3.50*	*5.25*	*0.30*	*11.03*	*Cum*
	Wearing coat	*1*	*8.82*	*4.25*	*0.08*	*2.81*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*8.82*	*0.44*	*0.18*	*1.37*	*Cum*
		2	*8.82*	*0.35*	*0.25*	*1.55*	*Cum*
		2	*8.82*	*0.22*	*0.55*	*2.12*	*Cum*
	TOTAL					**22.60**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*29*	*2.28*		*1.578*	*104.3*	*Kg*
a2	*10*	*9*	*5.65*		*0.616*	*31.3*	*Kg*
a3	*10*	*2*	*5.15*		*0.616*	*6.3*	*Kg*
a4	*10*	*18*	*2.20*		*0.616*	*24.4*	*Kg*
a5	*10*	*6*	*5.55*		*0.616*	*20.5*	*Kg*
	APPROACH SLAB						
c1	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c2	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
c3	*12*	*70*	*3.70*		*0.888*	*229.9*	*Kg*
c4	*12*	*46*	*5.45*		*0.888*	*222.5*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*30*	*2.37*		*0.888*	*63.1*	*Kg*
x2	*16*	*30*	*1.32*		*1.578*	*62.7*	*Kg*
x3	*12*	*24*	*3.65*		*0.888*	*77.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.22*		*1.578*	*224.1*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*19.53*	*0.0025*	*0.049*	*7850.00*	*383.260*	*Kg*
	Total Reinforcement Steel (in kg)					*2286.7*	*Kg*
	Total Weight in Metric Tonne					**2.29**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*4.67*		*0.20*	*1.87*	*Sqm*
		2		*1.12*	*0.20*	*0.45*	*Sqm*
		2	*4.67*		*0.80*	*7.48*	*Sqm*
		2		*1.12*	*0.80*	*1.79*	*Sqm*
		2	*4.67*		*0.32*	*2.99*	*Sqm*
		2		*0.87*	*0.32*	*0.56*	*Sqm*
		2	*4.67*		*0.45*	*4.21*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.78*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.78*	*0.80*	*1.24*	*Sqm*
		2	*1.56*		*0.59*	*1.84*	*Sqm*
		2		*0.49*	*0.59*	*0.58*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*3.71*		*0.20*	*1.48*	*Sqm*
		2		*1.64*	*0.20*	*0.65*	*Sqm*
		2	*3.71*		*0.80*	*5.93*	*Sqm*
		2		*1.44*	*0.80*	*2.30*	*Sqm*
		2	*3.71*		*0.75*	*5.56*	*Sqm*
		2		*0.93*	*0.75*	*1.39*	*Sqm*
		2	*3.71*		*0.45*	*3.34*	*Sqm*
		2		*0.82*	*0.45*	*0.74*	*Sqm*
	Return wall	*2*	*1.92*		*0.20*	*0.77*	*Sqm*
		2		*1.29*	*0.20*	*0.52*	*Sqm*
		2	*1.92*		*0.80*	*3.07*	*Sqm*
		2		*1.09*	*0.80*	*1.75*	*Sqm*
		2	*1.92*		*0.97*	*3.72*	*Sqm*
		2		*0.55*	*0.97*	*1.06*	*Sqm*
		2	*1.92*		*0.15*	*0.58*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*1.82*		*0.39*	*1.42*	*Sqm*
		1	*1.82*	5.25		*9.56*	*Sqm*
		2		*5.25*	0.39	*4.08*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	5.25		*36.75*	*Sqm*
		4		*5.25*	0.30	*6.30*	*Sqm*
	Parapet	*4*	*8.82*		*0.18*	*6.17*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.82*		*0.25*	*8.82*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.82*		*0.55*	*19.40*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**158.56**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*4.00*	*0.40*		*3.20*	*Sqm*
	TOTAL					**3.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*4.00*			*8.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	4.67	0.37		*3.49*	*Cum*
	Right and left Return wall	4	1.92	0.57		*4.40*	*Cum*
	Extra slope	*2*	*5.627*	*0.6315*	*1.263*	*8.98*	*Cum*
		2	*3.709*	*0.6315*	*1.263*	*5.92*	*Cum*
	TOTAL					**22.78**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 6.250						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*80.00*			**80.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.22*	*1.84*	*1.42*	*11.56*	*Cum*
		1	*6.16*	*2.15*	*1.42*	*18.72*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.39*	*1.84*	*1.42*	*21.80*	*Cum*
	Left abutment	*2*	*2.22*	*2.15*	*1.42*	*13.50*	*Cum*
		1	*6.16*	*2.15*	*1.42*	*18.72*	*Cum*
	Extra for Slope (0.5:1)	*1*	*8.39*	*0.71*	*1.42*	*8.41*	*Cum*
	TOTAL					**92.71**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.92*	*1.54*	*0.20*	*1.18*	*Cum*
		1	*6.16*	*1.85*	*0.20*	*2.27*	*Cum*
	Left abutment	*2*	*1.92*	*1.54*	*0.20*	*1.18*	*Cum*
		1	*6.16*	*1.85*	*0.20*	*2.27*	*Cum*
	Levelling course	*2*	*6.50*	*3.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**10.55**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*6.16*	*1.65*	*0.20*	*2.03*	*Cum*
		1	*6.16*	*1.45*	*0.80*	*7.13*	*Cum*
		1	*6.16*	*0.93*	*0.75*	*4.31*	*Cum*
		1	*6.16*	*0.82*	*0.60*	*3.03*	*Cum*
	Return wall	*2*	*1.82*	*1.34*	*0.20*	*0.97*	*Cum*
		2	*1.82*	*1.14*	*0.80*	*3.31*	*Cum*
		2	*1.82*	*0.58*	*0.80*	*1.70*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*6.16*	*1.65*	*0.20*	*2.03*	*Cum*
		1	*6.16*	*1.45*	*0.80*	*4.13*	*Cum*
		1	*6.16*	*0.93*	*0.75*	*4.31*	*Cum*
		1	*6.16*	*0.82*	*0.60*	*3.03*	*Cum*
	Return wall	*2*	*1.82*	*1.34*	*0.20*	*0.97*	*Cum*
		2	*1.82*	*1.14*	*0.80*	*3.31*	*Cum*
		2	*1.82*	*0.58*	*0.80*	*1.70*	*Cum*
		2	*1.82*	*0.40*	*0.15*	*0.22*	*Cum*
	DEDUCTION	*2*	*6.16*	*0.40*	*0.45*	*-2.22*	*Cum*
	TOTAL					**40.19**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	4.55	6.50	0.44	*12.87*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	*0.30*	*13.65*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*11.55*	*5.50*	*0.08*	*4.76*	*Cum*
	Parapet	*2*	*11.55*	*0.44*	*0.18*	*1.80*	*Cum*
		2	*11.55*	*0.35*	*0.25*	*2.03*	*Cum*
		2	*11.55*	*0.22*	*0.55*	*2.78*	*Cum*
	TOTAL					**37.89**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*41*	*5.11*		*1.578*	*330.6*	*Kg*
a2	*10*	*36*	*6.90*		*0.616*	*153.1*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*29*	*4.97*		*0.616*	*88.9*	*Kg*
a5	*10*	*20*	*6.69*		*0.616*	*82.5*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*76*	*2.40*		*0.888*	*162.1*	*Kg*
x2	*16*	*76*	*1.25*		*1.578*	*149.3*	*Kg*
x3	*10*	*24*	*4.45*		*0.616*	*65.8*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*40.2*	*0.0025*	*0.100*	*7850.00*	*788.65*	*Kg*
	Total Reinforcement Steel (in kg)					*3513.8*	*Kg*
	Total Weight in Metric Tonne					**3.51**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*6.16*		*0.20*	*2.47*	*Sqm*
		2		*1.65*	*0.20*	*0.66*	*Sqm*
		2	*6.16*		*0.80*	*9.86*	*Sqm*
		2		*1.45*	*0.80*	*2.31*	*Sqm*
		2	*6.16*		*0.75*	*9.25*	*Sqm*
		2		*0.93*	*0.75*	*1.40*	*Sqm*
		2	*6.16*		*0.60*	*7.40*	*Sqm*
		2		*0.82*	*0.60*	*0.98*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.34*	*0.20*	*0.53*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*1.14*	*0.80*	*1.82*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*0.58*	*0.80*	*0.93*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*6.16*		*0.20*	*2.47*	*Sqm*
		2		*1.65*	*0.20*	*0.66*	*Sqm*
		2	*6.16*		*0.80*	*9.86*	*Sqm*
		2		*1.45*	*0.80*	*2.31*	*Sqm*
		2	*6.16*		*0.75*	*9.25*	*Sqm*
		2		*0.93*	*0.75*	*1.40*	*Sqm*
		2	*6.16*		*0.60*	*7.40*	*Sqm*
		2		*0.82*	*0.60*	*0.98*	*Sqm*
	Return wall	*2*	*1.82*		*0.20*	*0.73*	*Sqm*
		2		*1.34*	*0.20*	*0.53*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*1.14*	*0.80*	*1.82*	*Sqm*
		2	*1.82*		*0.80*	*2.92*	*Sqm*
		2		*0.58*	*0.80*	*0.93*	*Sqm*
		2	*1.82*		*0.15*	*0.55*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*4.55*		*0.44*	*3.96*	*Sqm*
		1	*4.55*	6.50		*29.58*	*Sqm*
		2		*6.50*	0.44	*5.66*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.30	*7.80*	*Sqm*
	Parapet	*4*	*11.55*		*0.18*	*8.09*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*11.55*		*0.25*	*11.55*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*11.55*		*0.55*	*25.41*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**232.55**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	6.16	0.82		*10.13*	*Cum*
	Right and left Return wall	4	2.22	1.62		*14.36*	*Cum*
	Below Approach Slab	*2*	*6.164*	*2.66*	*1.162*	*38.10*	*Cum*
	Extra slope	*1*	*8.387*	*1.836*	*1.416*	*21.80*	*Cum*
		1	*8.3865*	*0.708*	*1.416*	*8.41*	*Cum*
	TOTAL					**92.81**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 7.700						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.20*	*1.78*	*1.40*	*10.91*	*Cum*
		1	*8.22*	*2.10*	*1.40*	*24.11*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.42*	*1.78*	*1.40*	*25.84*	*Cum*
	Left abutment	*2*	*2.20*	*2.10*	*1.40*	*12.90*	*Cum*
		1	*8.22*	*2.10*	*1.40*	*24.11*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.42*	*0.70*	*1.40*	*10.16*	*Cum*
	TOTAL					**108.02**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.90*	*1.48*	*0.20*	*1.12*	*Cum*
		1	*8.22*	*1.80*	*0.20*	*2.96*	*Cum*
	Left abutment	*2*	*1.90*	*1.48*	*0.20*	*1.12*	*Cum*
		1	*8.22*	*1.80*	*0.20*	*2.96*	*Cum*
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**12.92**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.22*	*1.60*	*0.20*	*2.63*	*Cum*
		1	*8.22*	*1.40*	*0.80*	*9.21*	*Cum*
		1	*8.22*	*0.91*	*0.60*	*4.49*	*Cum*
		1	*8.22*	*0.82*	*0.55*	*3.71*	*Cum*
	Return wall	*2*	*1.80*	*1.28*	*0.20*	*0.92*	*Cum*
		2	*1.80*	*1.08*	*0.80*	*3.10*	*Cum*
		2	*1.80*	*0.54*	*0.92*	*1.78*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*8.22*	*1.60*	*0.20*	*2.63*	*Cum*
		1	*8.22*	*1.40*	*0.80*	*6.21*	*Cum*
		1	*8.22*	*0.91*	*0.60*	*4.49*	*Cum*
		1	*8.22*	*0.82*	*0.55*	*3.71*	*Cum*
	Return wall	*2*	*1.80*	*1.28*	*0.20*	*0.92*	*Cum*
		2	*1.80*	*1.08*	*0.80*	*3.10*	*Cum*
		2	*1.80*	*0.54*	*0.92*	*1.78*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	DEDUCTION	*2*	*8.22*	*0.40*	*0.45*	*-2.96*	*Cum*
	TOTAL					**46.15**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.80	8.50	0.40	*12.82*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	*0.30*	*17.85*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*10.80*	*7.50*	*0.08*	*6.08*	*Cum*
	Parapet	*2*	*10.80*	*0.44*	*0.18*	*1.68*	*Cum*
		2	*10.80*	*0.35*	*0.25*	*1.90*	*Cum*
		2	*10.80*	*0.22*	*0.55*	*2.60*	*Cum*
	TOTAL					**42.93**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*61*	*4.36*		*1.578*	*419.7*	*Kg*
a2	*10*	*19*	*8.90*		*0.616*	*104.2*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*34*	*4.22*		*0.616*	*88.4*	*Kg*
a5	*10*	*15*	*8.69*		*0.616*	*80.4*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*62*	*2.40*		*0.888*	*132.2*	*Kg*
x2	*16*	*62*	*1.25*		*1.578*	*121.8*	*Kg*
x3	*10*	*24*	*3.70*		*0.616*	*54.7*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*46.2*	*0.0025*	*0.115*	*7850.00*	*905.77*	*Kg*
	Total Reinforcement Steel (in kg)					*3949.9*	*Kg*
	Total Weight in Metric Tonne					**3.95**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.22*		*0.20*	*3.29*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*8.22*		*0.80*	*13.16*	*Sqm*
		2		*1.40*	*0.80*	*2.24*	*Sqm*
		2	*8.22*		*0.60*	*9.87*	*Sqm*
		2		*0.91*	*0.60*	*1.09*	*Sqm*
		2	*8.22*		*0.55*	*9.05*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.28*	*0.20*	*0.51*	*Sqm*
		2	*1.80*		*0.80*	*2.88*	*Sqm*
		2		*1.08*	*0.80*	*1.72*	*Sqm*
		2	*1.80*		*0.92*	*3.31*	*Sqm*
		2		*0.54*	*0.92*	*0.99*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.22*		*0.20*	*3.29*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*8.22*		*0.80*	*13.16*	*Sqm*
		2		*1.40*	*0.80*	*2.24*	*Sqm*
		2	*8.22*		*0.60*	*9.87*	*Sqm*
		2		*0.91*	*0.60*	*1.09*	*Sqm*
		2	*8.22*		*0.55*	*9.05*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.28*	*0.20*	*0.51*	*Sqm*
		2	*1.80*		*0.80*	*2.88*	*Sqm*
		2		*1.08*	*0.80*	*1.72*	*Sqm*
		2	*1.80*		*0.92*	*3.31*	*Sqm*
		2		*0.54*	*0.92*	*0.99*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.80*		*0.40*	*3.02*	*Sqm*
		1	*3.80*	8.50		*32.30*	*Sqm*
		2		*8.50*	0.40	*6.75*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.30	*10.20*	*Sqm*
	Parapet	*4*	*10.80*		*0.18*	*7.56*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.80*		*0.25*	*10.80*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.80*		*0.55*	*23.76*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**261.29**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.22	0.70		*11.53*	*Cum*
	Right and left Return wall	4	2.20	1.38		*12.18*	*Cum*
	Below Approach Slab	*2*	*8.224*	*2.66*	*1.162*	*50.84*	*Cum*
	Extra slope	*1*	*10.424*	*1.776*	*1.396*	*25.84*	*Cum*
		1	*10.4235*	*0.698*	*1.396*	*10.16*	*Cum*
	TOTAL					**110.55**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 8.050						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*120.00*			**120.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*2.20*	*1.78*	*1.24*	*9.65*	*Cum*
		1	*8.22*	*2.10*	*1.24*	*21.33*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.42*	*1.78*	*1.24*	*22.86*	*Cum*
	Left abutment	*2*	*2.20*	*2.10*	*1.24*	*11.41*	*Cum*
		1	*8.22*	*2.10*	*1.24*	*21.33*	*Cum*
	Extra for Slope (0.5:1)	*1*	*10.42*	*0.62*	*1.24*	*7.95*	*Cum*
	TOTAL					**94.53**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.90*	*1.48*	*0.20*	*1.12*	*Cum*
		1	*8.22*	*1.80*	*0.20*	*2.96*	*Cum*
	Left abutment	*2*	*1.90*	*1.48*	*0.20*	*1.12*	*Cum*
		1	*8.22*	*1.80*	*0.20*	*2.96*	*Cum*
	Levelling course	*2*	*8.50*	*3.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**12.92**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*8.22*	*1.60*	*0.20*	*2.63*	*Cum*
		1	*8.22*	*1.40*	*0.80*	*9.21*	*Cum*
		1	*8.22*	*0.91*	*0.60*	*4.49*	*Cum*
		1	*8.22*	*0.82*	*0.55*	*3.71*	*Cum*
	Return wall	*2*	*1.80*	*1.28*	*0.20*	*0.92*	*Cum*
		2	*1.80*	*1.08*	*0.80*	*3.10*	*Cum*
		2	*1.80*	*0.54*	*0.92*	*1.78*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	Left abutment	*1*	*8.22*	*1.60*	*0.20*	*2.63*	*Cum*
		1	*8.22*	*1.40*	*0.80*	*6.21*	*Cum*
		1	*8.22*	*0.91*	*0.60*	*4.49*	*Cum*
		1	*8.22*	*0.82*	*0.55*	*3.71*	*Cum*
	Return wall	*2*	*1.80*	*1.28*	*0.20*	*0.92*	*Cum*
		2	*1.80*	*1.08*	*0.80*	*3.10*	*Cum*
		2	*1.80*	*0.54*	*0.92*	*1.78*	*Cum*
		2	*1.80*	*0.40*	*0.15*	*0.22*	*Cum*
	DEDUCTION	*2*	*8.22*	*0.40*	*0.45*	*-2.96*	*Cum*
	TOTAL					**46.15**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	3.80	8.50	0.40	*12.82*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	*0.30*	*17.85*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Wearing coat	*1*	*10.80*	*7.50*	*0.08*	*6.08*	*Cum*
	Parapet	*2*	*10.80*	*0.44*	*0.18*	*1.68*	*Cum*
		2	*10.80*	*0.35*	*0.25*	*1.90*	*Cum*
		2	*10.80*	*0.22*	*0.55*	*2.60*	*Cum*
	TOTAL					**42.93**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*4.36*		*1.578*	*316.5*	*Kg*
a2	*10*	*19*	*6.90*		*0.616*	*80.8*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*26*	*4.22*		*0.616*	*67.6*	*Kg*
a5	*10*	*15*	*6.69*		*0.616*	*61.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*62*	*2.40*		*0.888*	*132.2*	*Kg*
x2	*16*	*62*	*1.25*		*1.578*	*121.8*	*Kg*
x3	*10*	*24*	*3.70*		*0.616*	*54.7*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.27*		*1.578*	*233.2*	*Kg*
y3	*10*	*48*	*3.40*		*0.616*	*100.6*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*46.2*	*0.0025*	*0.115*	*7850.00*	*905.77*	*Kg*
	Total Reinforcement Steel (in kg)					*3434.2*	*Kg*
	Total Weight in Metric Tonne					**3.43**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*8.22*		*0.20*	*3.29*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*8.22*		*0.80*	*13.16*	*Sqm*
		2		*1.40*	*0.80*	*2.24*	*Sqm*
		2	*8.22*		*0.60*	*9.87*	*Sqm*
		2		*0.91*	*0.60*	*1.09*	*Sqm*
		2	*8.22*		*0.55*	*9.05*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.28*	*0.20*	*0.51*	*Sqm*
		2	*1.80*		*0.80*	*2.88*	*Sqm*
		2		*1.08*	*0.80*	*1.72*	*Sqm*
		2	*1.80*		*0.92*	*3.31*	*Sqm*
		2		*0.54*	*0.92*	*0.99*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*8.22*		*0.20*	*3.29*	*Sqm*
		2		*1.60*	*0.20*	*0.64*	*Sqm*
		2	*8.22*		*0.80*	*13.16*	*Sqm*
		2		*1.40*	*0.80*	*2.24*	*Sqm*
		2	*8.22*		*0.60*	*9.87*	*Sqm*
		2		*0.91*	*0.60*	*1.09*	*Sqm*
		2	*8.22*		*0.55*	*9.05*	*Sqm*
		2		*0.82*	*0.55*	*0.90*	*Sqm*
	Return wall	*2*	*1.80*		*0.20*	*0.72*	*Sqm*
		2		*1.28*	*0.20*	*0.51*	*Sqm*
		2	*1.80*		*0.80*	*2.88*	*Sqm*
		2		*1.08*	*0.80*	*1.72*	*Sqm*
		2	*1.80*		*0.92*	*3.31*	*Sqm*
		2		*0.54*	*0.92*	*0.99*	*Sqm*
		2	*1.80*		*0.15*	*0.54*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Slab	*2*	*3.80*		*0.40*	*3.02*	*Sqm*
		1	*3.80*	8.50		*32.30*	*Sqm*
		2		*8.50*	0.40	*6.75*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.30*	*4.20*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.30	*10.20*	*Sqm*
	Parapet	*4*	*10.80*		*0.18*	*7.56*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*10.80*		*0.25*	*10.80*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*10.80*		*0.55*	*23.76*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**261.29**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	8.22	0.70		*11.53*	*Cum*
	Right and left Return wall	4	2.20	1.38		*12.18*	*Cum*
	Below Approach Slab	*2*	*8.224*	*2.66*	*1.162*	*50.84*	*Cum*
	Extra slope	*1*	*10.424*	*1.776*	*1.235*	*22.86*	*Cum*
		1	*10.4235*	*0.6175*	*1.235*	*7.95*	*Cum*
	TOTAL					**105.36**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 12.152						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.97*	*1.43*	*4.60*	*Cum*
		1	*5.93*	*1.31*	*1.43*	*11.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.58*	*0.72*	*1.43*	*15.55*	*Cum*
	Left abutment	*2*	*1.66*	*0.97*	*1.43*	*4.60*	*Cum*
		1	*5.93*	*1.31*	*1.43*	*11.12*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.93*	*0.72*	*1.43*	*12.16*	*Cum*
	TOTAL					**59.16**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.97*	*0.20*	*0.64*	*Cum*
		1	*5.93*	*1.31*	*0.20*	*1.55*	*Cum*
	Left abutment	*2*	*1.66*	*0.97*	*0.20*	*0.64*	*Cum*
		1	*5.93*	*1.31*	*0.20*	*1.55*	*Cum*
	Levelling course	*2*	*3.50*	*8.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**9.15**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.93*	*1.11*	*0.20*	*1.32*	*Cum*
		1	*5.93*	*1.11*	*0.80*	*5.26*	*Cum*
		1	*5.93*	*0.87*	*0.30*	*1.54*	*Cum*
		1	*5.93*	*0.82*	*0.50*	*2.43*	*Cum*
	Return wall	*2*	*1.56*	*0.77*	*0.20*	*0.48*	*Cum*
		2	*1.56*	*0.77*	*0.80*	*1.92*	*Cum*
		2	*1.56*	*0.49*	*0.57*	*0.86*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*5.93*	*1.11*	*0.20*	*1.32*	*Cum*
		1	*5.93*	*1.11*	*0.80*	*5.26*	*Cum*
		1	*5.93*	*0.87*	*0.30*	*1.54*	*Cum*
		1	*5.93*	*0.82*	*0.50*	*2.43*	*Cum*
	Return wall	*2*	*1.56*	*0.77*	*0.20*	*0.48*	*Cum*
		2	*1.56*	*0.77*	*0.80*	*1.92*	*Cum*
		2	*1.56*	*0.49*	*0.57*	*0.86*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	TOTAL					**27.99**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.90	6.50	0.34	*4.14*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	0.34	*15.24*	*Cum*
	Wearing coat	*1*	*8.90*	*5.50*	*0.08*	*3.67*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*8.90*	*0.44*	*0.18*	*1.38*	*Cum*
		2	*8.90*	*0.35*	*0.25*	*1.56*	*Cum*
		2	*8.90*	*0.22*	*0.55*	*2.14*	*Cum*
	TOTAL					**28.14**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*36*	*2.46*		*1.578*	*139.8*	*Kg*
a2	*10*	*10*	*6.90*		*0.616*	*42.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.32*		*0.616*	*32.9*	*Kg*
a5	*10*	*7*	*6.69*		*0.616*	*28.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*32*	*2.32*		*0.888*	*65.9*	*Kg*
x2	*16*	*32*	*1.27*		*1.578*	*64.3*	*Kg*
x3	*10*	*24*	*2.60*		*0.616*	*38.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*28.0*	*0.0025*	*0.070*	*7850.00*	*549.23*	*Kg*
	Total Reinforcement Steel (in kg)					*2699.3*	*Kg*
	Total Weight in Metric Tonne					**2.70**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.93*		*0.20*	*2.37*	*Sqm*
		2		*1.11*	*0.20*	*0.44*	*Sqm*
		2	*5.93*		*0.80*	*9.49*	*Sqm*
		2		*1.11*	*0.80*	*1.78*	*Sqm*
		2	*5.93*		*0.30*	*3.56*	*Sqm*
		2		*0.87*	*0.30*	*0.52*	*Sqm*
		2	*5.93*		*0.50*	*5.93*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.77*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.77*	*0.80*	*1.23*	*Sqm*
		2	*1.56*		*0.57*	*1.77*	*Sqm*
		2		*0.49*	*0.57*	*0.55*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.93*		*0.20*	*2.37*	*Sqm*
		2		*1.11*	*0.20*	*0.44*	*Sqm*
		2	*5.93*		*0.80*	*9.49*	*Sqm*
		2		*1.11*	*0.80*	*1.78*	*Sqm*
		2	*5.93*		*0.30*	*3.56*	*Sqm*
		2		*0.87*	*0.30*	*0.52*	*Sqm*
		2	*5.93*		*0.50*	*5.93*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.77*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.77*	*0.80*	*1.23*	*Sqm*
		2	*1.56*		*0.57*	*1.77*	*Sqm*
		2		*0.49*	*0.57*	*0.55*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*1.90*		*0.34*	*1.27*	*Sqm*
		1	*1.90*	6.50		*12.35*	*Sqm*
		2		*6.50*	0.34	*4.36*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.34	*8.71*	*Sqm*
	Parapet	*4*	*8.90*		*0.18*	*6.23*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.90*		*0.25*	*8.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.90*		*0.55*	*19.58*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**177.66**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.93	0.36		*4.30*	*Cum*
	Right and left Return wall	4	1.66	0.56		*3.72*	*Cum*
	Extra slope	*2*	*7.584*	*0.716*	*1.432*	*15.55*	*Cum*
		2	*5.929*	*0.716*	*1.432*	*12.16*	*Cum*
	TOTAL					**35.73**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 12.700						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*90.00*			**90.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.68*	*1.07*	*1.20*	*4.33*	*Cum*
		1	*7.83*	*1.36*	*1.20*	*12.78*	*Cum*
	Extra for Slope (0.5:1)	*2*	*9.51*	*0.60*	*1.20*	*13.69*	*Cum*
	Left abutment	*2*	*1.68*	*1.07*	*1.20*	*4.33*	*Cum*
		1	*7.83*	*1.36*	*1.20*	*12.78*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.83*	*0.60*	*1.20*	*11.27*	*Cum*
	TOTAL					**59.18**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.68*	*1.07*	*0.20*	*0.72*	*Cum*
		1	*7.83*	*1.36*	*0.20*	*2.13*	*Cum*
	Left abutment	*2*	*1.68*	*1.07*	*0.20*	*0.72*	*Cum*
		1	*7.83*	*1.36*	*0.20*	*2.13*	*Cum*
	Levelling course	*2*	*3.50*	*8.50*	*0.08*	*4.76*	*Cum*
	TOTAL					**10.46**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*7.83*	*1.16*	*0.20*	*1.82*	*Cum*
		1	*7.83*	*1.16*	*0.80*	*7.27*	*Cum*
		1	*7.83*	*0.89*	*0.47*	*3.28*	*Cum*
		1	*7.83*	*0.82*	*0.50*	*3.21*	*Cum*
	Return wall	*2*	*1.56*	*0.87*	*0.20*	*0.54*	*Cum*
		2	*1.56*	*0.87*	*0.80*	*2.17*	*Cum*
		2	*1.56*	*0.51*	*0.74*	*1.18*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*7.83*	*1.16*	*0.20*	*1.82*	*Cum*
		1	*7.83*	*1.16*	*0.80*	*7.27*	*Cum*
		1	*7.83*	*0.89*	*0.47*	*3.28*	*Cum*
		1	*7.83*	*0.82*	*0.50*	*3.21*	*Cum*
	Return wall	*2*	*1.56*	*0.87*	*0.20*	*0.54*	*Cum*
		2	*1.56*	*0.87*	*0.80*	*2.17*	*Cum*
		2	*1.56*	*0.51*	*0.74*	*1.18*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	TOTAL					**39.32**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.90	8.50	0.35	*5.60*	*Cum*
	Approch Slab	*2*	*3.50*	*8.50*	0.34	*19.93*	*Cum*
	Wearing coat	*1*	*8.90*	*7.50*	*0.08*	*5.01*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*8.90*	*0.44*	*0.18*	*1.38*	*Cum*
		2	*8.90*	*0.35*	*0.25*	*1.56*	*Cum*
		2	*8.90*	*0.22*	*0.55*	*2.14*	*Cum*
	TOTAL					**35.63**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*46*	*2.46*		*1.578*	*178.6*	*Kg*
a2	*10*	*10*	*8.90*		*0.616*	*54.9*	*Kg*
a3	*10*	*2*	*8.40*		*0.616*	*10.4*	*Kg*
a4	*10*	*29*	*2.32*		*0.616*	*41.5*	*Kg*
a5	*10*	*7*	*8.69*		*0.616*	*37.5*	*Kg*
	APPROACH SLAB						
c1	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c2	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
c3	*12*	*114*	*3.70*		*0.888*	*374.4*	*Kg*
c4	*12*	*46*	*8.70*		*0.888*	*355.3*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*32*	*2.37*		*0.888*	*67.4*	*Kg*
x2	*16*	*32*	*1.32*		*1.578*	*66.9*	*Kg*
x3	*10*	*24*	*1.80*		*0.616*	*26.6*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*39.3*	*0.0025*	*0.098*	*7850.00*	*771.63*	*Kg*
	Total Reinforcement Steel (in kg)					*3331.9*	*Kg*
	Total Weight in Metric Tonne					**3.33**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*7.83*		*0.20*	*3.13*	*Sqm*
		2		*1.16*	*0.20*	*0.46*	*Sqm*
		2	*7.83*		*0.80*	*12.52*	*Sqm*
		2		*1.16*	*0.80*	*1.86*	*Sqm*
		2	*7.83*		*0.47*	*7.37*	*Sqm*
		2		*0.89*	*0.47*	*0.84*	*Sqm*
		2	*7.83*		*0.50*	*7.83*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.87*	*0.20*	*0.35*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.87*	*0.80*	*1.40*	*Sqm*
		2	*1.56*		*0.74*	*2.30*	*Sqm*
		2		*0.51*	*0.74*	*0.76*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*7.83*		*0.20*	*3.13*	*Sqm*
		2		*1.16*	*0.20*	*0.46*	*Sqm*
		2	*7.83*		*0.80*	*12.52*	*Sqm*
		2		*1.16*	*0.80*	*1.86*	*Sqm*
		2	*7.83*		*0.47*	*7.37*	*Sqm*
		2		*0.89*	*0.47*	*0.84*	*Sqm*
		2	*7.83*		*0.50*	*7.83*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.87*	*0.20*	*0.35*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.87*	*0.80*	*1.40*	*Sqm*
		2	*1.56*		*0.74*	*2.30*	*Sqm*
		2		*0.51*	*0.74*	*0.76*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*1.90*		*0.35*	*1.32*	*Sqm*
		1	*1.90*	8.50		*16.15*	*Sqm*
		2		*8.50*	0.35	*5.90*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	8.50		*59.50*	*Sqm*
		4		*8.50*	0.34	*11.39*	*Sqm*
	Parapet	*4*	*8.90*		*0.18*	*6.23*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.90*		*0.25*	*8.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.90*		*0.55*	*19.58*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**221.48**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*8.50*	*0.40*		*6.80*	*Sqm*
	TOTAL					**6.80**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*8.50*			*17.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	7.83	0.47		*7.28*	*Cum*
	Right and left Return wall	4	1.68	0.72		*4.83*	*Cum*
	Extra slope	*2*	*9.5065*	*0.6*	*1.2*	*13.69*	*Cum*
		2	*7.826*	*0.6*	*1.2*	*11.27*	*Cum*
	TOTAL					**37.06**	**Cum**

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	BILL OF QUANTITIES FOR CONSTRUCTION OF SLAB BRIDGE AT - KM 13.225						
1	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	*1*	*85.00*			**85.00**	**Sqm**
2	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.98*	*1.20*	*3.92*	*Cum*
		1	*5.92*	*1.32*	*1.20*	*9.38*	*Cum*
	Extra for Slope (0.5:1)	*2*	*7.58*	*0.60*	*1.20*	*10.91*	*Cum*
	Left abutment	*2*	*1.66*	*0.98*	*1.20*	*3.92*	*Cum*
		1	*5.92*	*1.32*	*1.20*	*9.38*	*Cum*
	Extra for Slope (0.5:1)	*2*	*5.92*	*0.60*	*1.20*	*8.52*	*Cum*
	TOTAL					**46.03**	**Cum**
3	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	Right abutment	*2*	*1.66*	*0.98*	*0.20*	*0.65*	*Cum*
		1	*5.92*	*1.32*	*0.20*	*1.56*	*Cum*
	Left abutment	*2*	*1.66*	*0.98*	*0.20*	*0.65*	*Cum*
		1	*5.92*	*1.32*	*0.20*	*1.56*	*Cum*
	Levelling course	*2*	*3.50*	*6.50*	*0.08*	*3.64*	*Cum*
	TOTAL					**8.07**	**Cum**
4	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Right abutment	*1*	*5.92*	*1.12*	*0.20*	*1.33*	*Cum*
		1	*5.92*	*1.12*	*0.80*	*5.31*	*Cum*
		1	*5.92*	*0.87*	*0.34*	*1.74*	*Cum*
		1	*5.92*	*0.82*	*0.50*	*2.43*	*Cum*
	Return wall	*2*	*1.56*	*0.78*	*0.20*	*0.49*	*Cum*
		2	*1.56*	*0.78*	*0.80*	*1.95*	*Cum*
		2	*1.56*	*0.49*	*0.61*	*0.93*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	Left abutment	*1*	*5.92*	*1.12*	*0.20*	*1.33*	*Cum*
		1	*5.92*	*1.12*	*0.80*	*5.31*	*Cum*
		1	*5.92*	*0.87*	*0.34*	*1.74*	*Cum*
		1	*5.92*	*0.82*	*0.50*	*2.43*	*Cum*
	Return wall	*2*	*1.56*	*0.78*	*0.20*	*0.49*	*Cum*
		2	*1.56*	*0.78*	*0.80*	*1.95*	*Cum*
		2	*1.56*	*0.49*	*0.61*	*0.93*	*Cum*
		2	*1.56*	*0.40*	*0.15*	*0.19*	*Cum*
	TOTAL					**28.70**	**Cum**
5	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Slab	1	1.90	6.50	0.34	*4.14*	*Cum*
	Approch Slab	*2*	*3.50*	*6.50*	0.34	*15.24*	*Cum*
	Wearing coat	*1*	*8.90*	*5.50*	*0.08*	*3.67*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Parapet	*2*	*8.90*	*0.44*	*0.18*	*1.38*	*Cum*
		2	*8.90*	*0.35*	*0.25*	*1.56*	*Cum*
		2	*8.90*	*0.22*	*0.55*	*2.14*	*Cum*
	TOTAL					**28.14**	**Cum**
6	Providing M.S. reinforcement as per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	***No.***	***Length***		***Weight per m***	**Quantity**	**Unit**
	SLAB						
a1	*16*	*36*	*2.36*		*1.578*	*134.1*	*Kg*
a2	*10*	*10*	*6.90*		*0.616*	*42.5*	*Kg*
a3	*10*	*2*	*6.40*		*0.616*	*7.9*	*Kg*
a4	*10*	*23*	*2.28*		*0.616*	*32.3*	*Kg*
a5	*10*	*7*	*6.69*		*0.616*	*28.9*	*Kg*
	APPROACH SLAB						
c1	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c2	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
c3	*12*	*86*	*3.70*		*0.888*	*282.5*	*Kg*
c4	*12*	*46*	*6.70*		*0.888*	*273.6*	*Kg*
	CRASH BARRIER FOR MAIN SLAB						
x1	*12*	*32*	*2.37*		*0.888*	*67.4*	*Kg*
x2	*16*	*32*	*1.32*		*1.578*	*66.9*	*Kg*
x3	*10*	*24*	*2.60*		*0.616*	*38.5*	*Kg*
	CRASH BARRIER FOR APPROACH SLAB						
y1	*12*	*116*	*2.32*		*0.888*	*239.0*	*Kg*
y2	*16*	*116*	*1.28*		*1.578*	*233.4*	*Kg*
y3	*12*	*48*	*3.40*		*0.888*	*144.9*	*Kg*
	RCC M-20 (Providing Skin Reinforcement @0.25%)	*28.7*	*0.0025*	*0.072*	*7850.00*	*563.31*	*Kg*
	Total Reinforcement Steel (in kg)					*2711.1*	*Kg*
	Total Weight in Metric Tonne					**2.71**	**MT**
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Right abutment	*2*	*5.92*		*0.20*	*2.37*	*Sqm*
		2		*1.12*	*0.20*	*0.45*	*Sqm*
		2	*5.92*		*0.80*	*9.47*	*Sqm*
		2		*1.12*	*0.80*	*1.79*	*Sqm*
		2	*5.92*		*0.34*	*4.00*	*Sqm*
		2		*0.87*	*0.34*	*0.59*	*Sqm*
		2	*5.92*		*0.50*	*5.92*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.78*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.78*	*0.80*	*1.25*	*Sqm*
		2	*1.56*		*0.61*	*1.89*	*Sqm*
		2		*0.49*	*0.61*	*0.60*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*
	Left abutment	*2*	*5.92*		*0.20*	*2.37*	*Sqm*
		2		*1.12*	*0.20*	*0.45*	*Sqm*
		2	*5.92*		*0.80*	*9.47*	*Sqm*
		2		*1.12*	*0.80*	*1.79*	*Sqm*
		2	*5.92*		*0.34*	*4.00*	*Sqm*
		2		*0.87*	*0.34*	*0.59*	*Sqm*
		2	*5.92*		*0.50*	*5.92*	*Sqm*
		2		*0.82*	*0.50*	*0.82*	*Sqm*
	Return wall	*2*	*1.56*		*0.20*	*0.62*	*Sqm*
		2		*0.78*	*0.20*	*0.31*	*Sqm*
		2	*1.56*		*0.80*	*2.49*	*Sqm*
		2		*0.78*	*0.80*	*1.25*	*Sqm*
		2	*1.56*		*0.61*	*1.89*	*Sqm*
		2		*0.49*	*0.61*	*0.60*	*Sqm*
		2	*1.56*		*0.15*	*0.47*	*Sqm*
		2		*0.40*	*0.15*	*0.12*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Slab	*2*	*1.90*		*0.34*	*1.27*	*Sqm*
		1	*1.90*	6.50		*12.35*	*Sqm*
		2		*6.50*	0.34	*4.36*	*Sqm*
	Approch Slab	*4*	*3.50*		*0.34*	*4.69*	*Sqm*
		2	*3.50*	6.50		*45.50*	*Sqm*
		4		*6.50*	0.34	*8.71*	*Sqm*
	Parapet	*4*	*8.90*		*0.18*	*6.23*	*Sqm*
		4		*0.44*	0.18	*0.31*	*Sqm*
		4	*8.90*		*0.25*	*8.90*	*Sqm*
		4		*0.35*	0.25	*0.35*	*Sqm*
		4	*8.90*		*0.55*	*19.58*	*Sqm*
		4		*0.22*	*0.55*	*0.48*	*Sqm*
	TOTAL					**179.04**	**Sqm**
8	Providing weepholes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 90 mm dia PVC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing	8				**8.00**	**No.**
9	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. **(PWD NH SOR Chattisgarh, Ch-14, Sl.No. 14.17, Pg. 60)**						
		2	*6.50*	*0.40*		*5.20*	*Sqm*
	TOTAL					**5.20**	**Sqm**
10	Providing and laying modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140 mm assembly comprising of edge beams, central beam, 2modules chloroprene seal, anchorage elements, support and control system. (RCD M-126)	*2*	*6.50*			*13.00*	*RM*
11	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.(RCD 14.09)	2				2.00	Nos
12	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Right and left abutment	2	5.92	0.38		*4.55*	*Cum*
	Right and left Return wall	4	1.66	0.59		*3.89*	*Cum*
	Extra slope	*2*	*7.578*	*0.6*	*1.2*	*10.91*	*Cum*
		2	*5.9175*	*0.6*	*1.2*	*8.52*	*Cum*
	TOTAL					**27.88**	**Cum**

CR/HR MAHIMAPUR SUB DY.

(Total Cost – Rs ₹ 55,36,924.97)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF HR/CR GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.84
	Total 1+2+3= ***(B)*** =	Rs.	93698.34
4	Labour charge 30%(B) =	Rs.	28109.50
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.50
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75
	Total = B+4+5+6+7 = ***C***	Rs.	155373.89
8	Other incidental charge , **3 % = of C**	Rs.	4661.22
	Total C+8 = D	Rs.	**160035.11**

DETAIL QUANTITIES OF CROSS REGULATOR GATE OF MAHIMAPUR SUB DY.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	3.200	0.500	**3.70**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.350	0.200	**1.55**
	(h) is head of water above sill of gate in m	0.850	0.3	**1.150**
	Weight of lift gate excluding embedded parts	**1.09**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	1.09	2.7
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2.7	820.13
	Weight of screw hoist with all accessories	**0.82**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.150	400	460
	Columns with bracings/Anchors/Stiffeners	**0.46**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.15	400	460
	Beams with cross beams/stiffeners	**0.46**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		0.92	10%	0.092
	Railing/ Chequered plate/Ladder etc	**0.092**		**T**
4	**Embedded Part =** 0.3 times of weight of gate	**0.88**		**T**
Total Weight of One Gate		**3.80**		**T**

DETAIL QUANTITIES OF HEAD REGULATOR GATE OF MAHIMAPUR SUB DY.				
Calculation procedure of Gate's weight for estimation purpose				
1	**Weight of 1 Vertical lift gate**	**0.1332x(L^2XHxh)^0.659**		
	(L) is length = clear vent width in m + 0.50m.	3.200	0.500	**3.70**
	(H) is height of gate in m = clear vent height in m+ 0.20m.	1.350	0.200	**1.55**
	(h) is head of water above sill of gate in m	0.850	0.3	**1.150**
	Weight of lift gate excluding embedded parts	**1.09**		**T**
2	**Capacity of screw hoist in tone including 25%reserve capacity (Hoist capacity shall be rounded off to next 1 tonne)**	**2.50 xWt of gate**		
		2.5	1.09	2.7
	Weight of screw hoist with all accessories	300 kg per tonne capacity of hoist		
		300	2.7	820.13
	Weight of screw hoist with all accessories	**0.82**		**T**
3	**Weight of hoist bridge:**			
(i)	Columns with bracings/Anchors/Stiffeners	400 kg per meter height		
		1.150	400	460
	Columns with bracings/Anchors/Stiffeners	**0.46**		**T**
(ii)	Beams with cross beams/stiffeners	400 kg per meter span		
		1.15	400	460
	Beams with cross beams/stiffeners	**0.46**		**T**
(iii)	Railing/ Chequered plate/Ladder etc	10% of wt. of columns/beams		
		0.92	10%	0.092
	Railing/ Chequered plate/Ladder etc	**0.092**		**T**
4	**Embedded Part =** 0.3 times of weight of gate	**0.88**		**T**
Total Weight of One Gate		**3.80**		**T**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND								
ABSTRACT OF COST HR+CR FOR MAHIMAPUR SUB DY OFFTAKING FROM RD-4+000 KM AT MAHIMAPUR SUB DY.								
S. No.	**Item of Works**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL 2025)**	**Amount (Rs)**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	543.339	Cum	**195.20**	106059.86			
2	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	65.19	Cum	**6381.70**	416036.79	21.12	29.34	58.67
3	Providing & laying P.C.C. or **R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	254.65	Cum	**6914.20**	1760695.73	105.04	109.50	219.00
4	Providing & laying P.C.C. or **R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	43.33	Cum	**8151.40**	353237.67	24.57	16.90	34.23
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.	7.12	MT	**73574.90**	523570.42			
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	7.61	MT	**160035.11**	1217333.99			
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.	299.86	Sqm	**578.60**	173496.90			
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	21.36	Sqm	**680.10**	14526.94			
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry. (WRD M-002)	27.20	Cum	**694.61**	18892.00			
10	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	27.20	Cum	**1237.00**	33643.93			
11	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)	4.22	Cum	**1377.70**	5819.40			
12	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	4.22	Cum	**516.50**	2181.70			
13	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	20.49	Sqm	**63.20**	1295.21			
14	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	16.00	No.	**5588.70**	89419.20			
15	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	8.40	Sqm	**66.00**	554.40			
16	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications.	21.00	RM	**499.80**	10495.80			
17	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and	34.57	Cum	**149.30**	5161.69			
18	**Carriage of materials**							
	Coarse Sand (60 Km lead)	155.736	Cum	**1075.00**	167416.35			
	Coarse Aggregates (100 Km lead)	316.130	Cum	**1398.00**	441949.21			
	Cement (30 km lead)	150.736	MT	**742.00**	111845.95			
	Boulder (60 Km lead)	27.20	Cum	**1159.00**	31522.48			
	Steel (30 Km lead)	14.72	MT	**742.00**	10924.34			
	TOTAL (In Rs.)				**5496079.96**			
	TOTAL (In Rs.)				**5496079.96**			
	Seigniorage @10%			**Rate**	**Amount in Rs.**	**10%**		
	Coarse Sand	155.74	Cum	**584.64**	91049.57	9104.96		
	Coarse Aggregate	316.13	Cum	**944.26**	298508.55	29850.86		
	Boulders	27.20	Cum	**694.61**	18892.00	1889.20		
	Total					40845.01		
	For 1 nos. HR, Total Seigniorage charges					**40845.01**		

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILS OF QUANTITIES OF CR+HR MAHIMAPUR SUB DY OFFTAKING FROM RD-4+000 KM AT MAHIMAPUR SUB DY.

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
1	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.						
	Abutment of CR & HR						
	Section A-A	*4*	*2.00*	*1.73*	*3.052*	*42.240*	*Cum*
	Section B-B	*4*	*6.45*	*1.82*	*2.700*	*126.781*	*Cum*
	U/S Transition wall of CR & HR						
	Left Bank (Section 9-9)	*4*	*8.32*	*1.10*	*2.550*	*93.356*	*Cum*
	Right Bank (Section 9-9)	4	7.94	1.10	3.050	*106.602*	*Cum*
	D/S Transition wall of CR & HR						
	Sec 4-4	*4*	*0.53*	*1.10*	*2.550*	*5.902*	*Cum*
	Avg. of Sec 1-1 & 3-3	*4*	*2.89*	*2.20*	*2.550*	*65.015*	*Cum*
	Floor For CR & HR						
	U/S key	*2*	*0.75*	*3.2*	*0.850*	*4.080*	*Cum*
	Floor	*2*	*1.95*	*3.2*	*0.750*	*9.370*	*Cum*
		2	*0.35*	*3.200*	*0.600*	*1.332*	*Cum*
		2	*6.15*	*3.200*	*0.750*	*29.520*	*Cum*
		2	*0.02*	*3.200*	*0.294*	*0.144*	*Cum*
		2	*2.64*	*3.200*	*0.650*	*10.962*	*Cum*
		2	*0.75*	*3.200*	*0.650*	*3.120*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm for CR	*2*	*2.20*	*3.200*	*0.600*	*8.448*	*Cum*
	Toe Wall Base D/S Portion of CR	*2*	*3.20*	*0.850*	*1.200*	*6.528*	*Cum*
	Toe Wall Base (For Brick Pitching) for Junction Point	*1*	*20.31*	*0.45*	*0.3*	*2.742*	*Cum*
	Boulder Pitching (D/S Portion)	*2*	*2.00*	*2.600*	*0.900*	*9.360*	*Cum*
	Boulder Apron in Junction Point	*1*	*19.82*		*0.9*	*17.838*	*Cum*
	TOTAL					**543.34**	**Cum**
2	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.						
	PCC Below Floor for CR						
		1	*0.69*	*3.200*	*0.150*	*0.33*	*Cum*
		1	*0.67*	*3.200*	*0.150*	*0.32*	*Cum*
		1	*0.97*	*3.200*	*0.150*	*0.47*	*Cum*
		1	*0.34*	*3.200*	*0.150*	*0.16*	*Cum*
		1	*5.19*	*3.200*	*0.150*	*2.49*	*Cum*
		1	*0.67*	*3.200*	*0.150*	*0.32*	*Cum*
		1	*0.69*	*3.200*	*0.150*	*0.33*	*Cum*
	PCC Below Floor for HR						
		1	*0.69*	*3.200*	*0.150*	*0.33*	*Cum*
		1	*0.67*	*3.200*	*0.150*	*0.32*	*Cum*
		1	*0.97*	*3.200*	*0.150*	*0.47*	*Cum*
		1	*0.34*	*3.200*	*0.150*	*0.16*	*Cum*
		1	*5.19*	*3.200*	*0.150*	*2.49*	*Cum*
		1	*0.67*	*3.200*	*0.150*	*0.32*	*Cum*
		1	*0.69*	*3.200*	*0.150*	*0.33*	*Cum*
	PCC Below Abutment of CR						
	Section A-A	*2*	*2.00*	*1.730*	*0.300*	*2.08*	*Cum*
	Section B-B	*2*	*6.45*	*1.820*	*0.300*	*7.04*	*Cum*
	PCC Below Abutment of HR						
	Section C-C	*2*	*2.00*	*1.520*	*0.300*	*1.82*	*Cum*
	Section D-D	*2*	*6.45*	*0.750*	*0.300*	*2.90*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	U/S Transition wall of CR						
	Left Bank (Section 9-9)	*1*	*8.32*	*1.100*	*0.300*	*2.75*	*Cum*
	Right Bank (Section 9-9)	*1*	*7.94*	*1.100*	*0.300*	*2.62*	*Cum*
	U/S Transition wall of HR						
	Left Bank (Section 9-9)	*1*	*20.37*	*1.100*	*0.300*	*6.72*	*Cum*
	Right Bank (Section 9-9)	*1*	*8.50*	*1.100*	*0.300*	*2.81*	*Cum*
	D/S Transition wall of CR						
	Sec 4-4	*2*	*0.53*	*1.100*	*0.300*	*0.35*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.89*	*2.203*	*0.300*	*3.82*	*Cum*
	D/S Transition wall of HR						
	Sec 8-8	*2*	*0.53*	*1.100*	*0.300*	*0.35*	
	Avg. of Sec 5-5 & 7-7	*2*	*2.89*	*2.203*	*0.300*	*3.82*	*Cum*
	Toe Wall Base D/S Portion of CR	*1*	*3.20*	*0.850*	*0.300*	*0.82*	*Cum*
	Toe Wall Stem D/S Portion of CR	*1*	*3.20*	*0.450*	*0.900*	*1.30*	*Cum*
	Toe Wall Base D/S Portion of HR	*1*	*3.20*	*0.850*	*0.300*	*0.82*	*Cum*
	Toe Wall Stem D/S Portion of HR	*1*	*3.20*	*0.450*	*0.900*	*1.30*	*Cum*
	Toe Wall Base (For Brick Pitching) for CR	*1*	*2.00*	*0.450*	*0.300*	*0.27*	*Cum*
	Toe Wall Stem (For Brick Pitching) for CR	*1*	*2.00*	*0.300*	*0.900*	*0.54*	*Cum*
	Toe Wall Base (For Brick Pitching) for HR	*1*	*2.00*	*0.450*	*0.300*	*0.27*	*Cum*
	Toe Wall Stem (For Brick Pitching) for HR	*1*	*2.00*	*0.300*	*0.900*	*0.54*	*Cum*
	Toe Wall Base (For Brick Pitching) for Junction Point	*1*	*20.31*	*0.450*	*0.300*	*2.74*	*Cum*
	Toe Wall Stem (For Brick Pitching) for Junction Point	*1*	*20.31*	*0.300*	*0.900*	*5.48*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm for CR	*24*	*0.60*	*0.600*	*0.300*	*2.59*	*Cum*
	D/S Portion C.C. Blocks (600x600x300)mm for HR	*24*	*0.60*	*0.600*	*0.300*	*2.59*	*Cum*
	TOTAL					**65.19**	***Cum***
3	Providing & laying P.C.C. or R.C.C. M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	Abutment of CR						
	Section A-A	*2*	*2.00*	*0.82*	*0.50*	*1.64*	*Cum*
		2	*2.00*	*1.08*	*0.85*	*3.66*	*Cum*
		2	*2.00*	*1.33*	*1.40*	*7.45*	*Cum*
	Section B-B	*2*	*6.45*	*1.12*	*1.00*	*14.45*	*Cum*
		2	*6.45*	*1.42*	*1.40*	*25.65*	*Cum*
	Abutment of HR						
	Section C-C	*2*	*2.00*	*0.82*	*0.50*	*1.64*	*Cum*
		2	*2.00*	*1.08*	*0.85*	*3.66*	*Cum*
		2	*2.00*	*1.33*	*1.40*	*7.45*	*Cum*
	Section D-D	*2*	*6.45*	*1.12*	*1.00*	*14.45*	*Cum*
		2	*6.45*	*1.42*	*1.40*	*25.65*	*Cum*
	U/S Transition wall of CR						
	Left Bank (Section 9-9)	*1*	*8.32*	*0.35*	*0.50*	*1.46*	*Cum*
		1	*8.32*	*0.53*	*0.85*	*3.71*	*Cum*
		1	*8.32*	*0.70*	*0.90*	*5.24*	*Cum*
	Right Bank (Section 9-9)	*1*	*7.94*	*0.35*	*1.00*	*2.78*	*Cum*
		1	*7.94*	*0.53*	*0.85*	*3.54*	*Cum*
		1	*7.94*	*0.70*	*0.90*	*5.00*	*Cum*
	U/S Transition wall of HR						
	Left Bank (Section 9-9)	*1*	*20.37*	*0.35*	*0.85*	*6.08*	*Cum*
		1	*20.37*	*0.53*	*0.85*	*9.09*	*Cum*
		1	*20.37*	*0.70*	*0.90*	*12.83*	*Cum*
	Right Bank (Section 9-9)	*1*	*8.50*	*0.35*	*1.40*	*4.17*	*Cum*
		1	*8.50*	*0.53*	*0.85*	*3.79*	*Cum*
		1	*8.50*	*0.70*	*0.90*	*5.36*	*Cum*
	D/S Transition wall of CR						

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Sec 4-4	*2*	*0.53*	*0.70*	*0.90*	*0.66*	*Cum*
		2	*0.53*	*0.53*	*0.85*	*0.47*	*Cum*
		2	*0.53*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 1-1 & 3-3	*2*	*2.89*	*1.80*	*0.90*	*9.39*	*Cum*
		2	*2.89*	*1.37*	*0.85*	*6.76*	*Cum*
		2	*2.89*	*0.76*	*0.50*	*2.19*	*Cum*
	D/S Transition wall of HR						
	Sec 8-8	*2*	*0.53*	*0.70*	*0.90*	*0.66*	*Cum*
		2	*0.53*	*0.53*	*0.85*	*0.47*	*Cum*
		2	*0.53*	*0.35*	*0.50*	*0.18*	*Cum*
	Avg. of Sec 5-5 & 7-7	*2*	*2.89*	*1.80*	*0.90*	*9.39*	*Cum*
		2	*2.89*	*1.37*	*0.85*	*6.76*	*Cum*
		2	*2.89*	*0.76*	*0.50*	*2.19*	*Cum*
	Floor for CR						
	U/S key	*1*	*0.75*	*3.20*	*0.70*	*1.68*	*Cum*
	Floor	*1*	*1.95*	*3.20*	*0.60*	*3.75*	*Cum*
		1	*0.35*	*3.20*	*0.45*	*0.50*	*Cum*
		2	*0.02*		*3.20*	*0.14*	*Cum*
		1	*6.15*	*3.20*	*0.60*	*11.81*	*Cum*
		1	*2.64*	*3.20*	*0.50*	*4.22*	*Cum*
	D/S key	*1*	*0.75*	*3.20*	*0.50*	*1.20*	*Cum*
	Floor for HR						
	U/S key	*1*	*0.75*	*3.20*	*0.70*	*1.68*	*Cum*
	Floor	*1*	*1.95*	*3.20*	*0.60*	*3.75*	*Cum*
		1	*0.35*	*3.20*	*0.45*	*0.50*	*Cum*
		2	*0.02*		*3.20*	*0.14*	*Cum*
		1	*6.15*	*3.20*	*0.60*	*11.81*	*Cum*
		1	*2.64*	*3.20*	*0.50*	*4.22*	*Cum*
	D/S key	*1*	*0.75*	*3.20*	*0.50*	*1.20*	*Cum*
	TOTAL					**254.65**	***Cum***
4	Providing & laying P.C.C. or R.C.C. M-250 with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.						
	For CR						
	Over Floor	*1*	*1.30*	*3.20*	*0.20*	*0.83*	*Cum*
	Crest	*1*	*0.70*	*3.20*	*0.20*	*0.45*	*Cum*
		1	*0.34*	*3.20*	*0.15*	*0.16*	*Cum*
		1	*6.15*	*3.20*	*0.20*	*3.94*	*Cum*
	Top Slab	*1*	*5.25*	*4.00*	*0.38*	*7.91*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*4.00*	*0.08*	*1.28*	*Cum*
	Dirt wall	*2*	*5.25*	0.82	*0.50*	*4.31*	*Cum*
		2	*5.25*	*0.40*	*0.48*	*2.00*	*Cum*
	Parapet	*2*	*4.84*	*0.45*	*0.18*	*0.75*	*Cum*
		2	*4.84*	*0.35*	*0.25*	*0.85*	*Cum*
		2	*4.84*	*0.22*	*0.55*	*1.16*	*Cum*
	For HR						
	Over Floor	*1*	*1.30*	*3.20*	*0.20*	*0.83*	*Cum*
	Crest	*1*	*0.70*	*3.20*	*0.20*	*0.45*	*Cum*
		1	*0.34*	*3.20*	*0.15*	*0.16*	*Cum*
		1	*6.15*	*0.00*	*0.20*	*0.00*	*Cum*
	Top Slab	*1*	*5.25*	*4.00*	*0.38*	*7.91*	*Cum*
	75mm Th. Wearing coat on top slab	*1*	*4.25*	*4.00*	*0.08*	*1.28*	*Cum*
	Dirt wall	*2*	*5.25*	0.82	*0.50*	*4.31*	*Cum*
		2	*5.25*	*0.40*	*0.48*	*2.00*	*Cum*
	Parapet	*2*	*4.84*	*0.45*	*0.18*	*0.75*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	4.84	0.35	0.25	0.85	Cum
		2	4.84	0.22	0.55	1.16	Cum
	TOTAL					**43.33**	**Cum**
5	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	Dia of Bars	**Length**	**Nos.**		**Weight per m**	**Quantity**	
	Slab Per Span						
a1	*16*	*4.420*	*37*		*1.578*	*258.089*	*Kg*
a2	*10*	*5.630*	*20*		*0.616*	*69.413*	*Kg*
a3	*10*	*5.150*	*2*		*0.616*	*6.350*	*Kg*
a4	*10*	*4.380*	*21*		*0.616*	*56.702*	*Kg*
a5	*10*	*5.550*	*16*		*0.616*	*54.742*	*Kg*
	Dirt Wall						
d1	*12*	*4.560*	*26*		*0.888*	*105.246*	*Kg*
d2	*12*	*5.550*	*14*		*0.888*	*68.975*	*Kg*
	Crash Barrier						
x1	*12*	*2.521*	*66*		*0.888*	*147.701*	*Kg*
x2	*16*	*1.344*	*66*		*1.578*	*139.987*	*Kg*
x3	*10*	*3.630*	*24*		*0.616*	*53.706*	*Kg*
	Floor R/F						
u/s key	*12*	*3.918*	*12*		*0.888*	*41.736*	*Kg*
	12	*4.000*	*17*				
d/s key	*12*	*3.918*	*12*		*0.888*	*41.736*	*Kg*
	12	*4.000*	*17*				
	floor raft						
	12	*9.205*	*13*		*0.888*	*106.227*	*Kg*
	12	*9.085*	*13*		*0.888*	*104.842*	*Kg*
	12	*4.094*	*41*		*0.888*	*149.005*	*Kg*
	12	*3.974*	*41*		*0.888*	*144.637*	*Kg*
	0.25 % Skin Reinforcement for Transition walls	*102.37*	*0.25%*	*0.26*	*7850*	*2008.98*	*Kg*
	TOTAL Weight of steel (in kg) for CR & HR					7116.16	*Kg*
	TOTAL Weight of Steel (in Tonne)					**7.12**	***MT***
6	Structural Steel (Average rate of Angle, Joint and Channel) etc.	1		7.61		**7.61**	***MT***
	*Separate sheet attached						
							Sqm
7	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.						
	Abutment of CR & HR						*Sqm*
	Section A-A	*4*	*2.00*		*0.50*	*4.00*	*Sqm*
		4		*0.82*	*0.50*	*1.64*	*Sqm*
		4	*2.00*		*0.85*	*6.82*	*Sqm*
		4		*1.08*	*0.85*	*3.66*	
		4	*2.00*		*1.40*	*11.20*	*Sqm*
		4		*1.33*	*1.40*	*7.45*	*Sqm*
	Section B-B	*4*	*6.45*		*1.00*	*25.80*	*Sqm*
		4		*1.12*	*1.00*	*4.48*	*Sqm*
		4	*6.45*		*1.40*	*36.12*	*Sqm*
		4		*1.42*	*1.40*	*7.95*	*Sqm*
	U/S Transition wall of CR & HR						*Sqm*
	Left Bank (Section 9-9)	*4*	*8.32*		*0.50*	*16.64*	*Sqm*
		4		*0.35*	*0.50*	*0.70*	*Sqm*
		2	*8.32*		*0.85*	*14.14*	*Sqm*
		2		*0.53*	*0.85*	*0.89*	*Sqm*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
		2	*8.32*		*0.90*	*14.98*	*Sqm*
		2		*0.70*	*0.90*	*1.26*	*Sqm*
							Sqm
	Right Bank (Section 9-9)	*2*	*7.94*		*1.00*	*15.89*	*Sqm*
		2		*0.35*	*1.00*	*0.70*	*Sqm*
		2	*7.94*		*0.85*	*13.50*	*Sqm*
		2		*0.53*	*0.85*	*0.89*	*Sqm*
		2	*7.94*		*0.90*	*14.30*	*Sqm*
		2		*0.70*	*0.90*	*1.26*	*Sqm*
	D/S Transition wall of HR & CR						
	Sec 4-4	*2*	*0.526*		*0.9*	*0.95*	*Sqm*
		2		*0.7*	*0.90*	*1.26*	*Sqm*
		2	*0.526*		*0.85*	*0.89*	*Sqm*
		2		*0.525*	*0.85*	*0.89*	*Sqm*
		2	*0.53*		*0.50*	*0.53*	*Sqm*
		2		*0.35*	*0.50*	*0.35*	*Sqm*
	Avg. of Sec 5-5 & 7-7	*2*	*2.89*		*0.90*	*5.21*	*Sqm*
		2		*1.80*	*0.90*	*3.24*	*Sqm*
		2	*2.89*		*0.85*	*4.92*	*Sqm*
		2		*1.37*	*0.85*	*2.34*	*Sqm*
		2	*2.89*		*0.50*	*2.89*	*Sqm*
	Floor for CR						
	U/S key	*2*	*0.75*		*0.70*	*1.05*	*Sqm*
		2		*3.20*	*0.70*	*4.48*	*Sqm*
	Floor	*2*	*1.95*		*0.60*	*2.34*	*Sqm*
		2		*3.20*	*0.60*	*3.84*	*Sqm*
		2	*0.35*		*0.45*	*0.31*	*Sqm*
		2		*3.20*	*0.45*	*2.88*	*Sqm*
		2	*0.02*		*3.20*	*0.14*	*Sqm*
		2		*0.00*	*3.20*	*0.00*	*Sqm*
		2	*6.15*		*0.60*	*7.38*	*Sqm*
		2		*3.20*	*0.60*	*3.84*	*Sqm*
		2	*2.64*		*0.50*	*2.64*	*Sqm*
		2		*3.20*	*0.50*	*3.20*	*Sqm*
	D/S key	*2*	*0.75*		*0.50*	*0.75*	*Sqm*
		2		*3.20*	*0.50*	*3.20*	*Sqm*
	Floor for HR						
	U/S key	*2*	*0.75*		*0.70*	*1.05*	*Sqm*
		2		*3.20*	*0.70*	*4.48*	*Sqm*
	Floor	*2*	*1.95*		*0.60*	*2.34*	*Sqm*
		2		*3.20*	*0.60*	*3.84*	*Sqm*
		2	*0.35*		*0.45*	*0.31*	*Sqm*
		2		*3.20*	*0.45*	*2.88*	*Sqm*
		2	*0.02*		*3.20*	*0.14*	*Sqm*
		2		*0.00*	*3.20*	*0.00*	*Sqm*
		2	*6.15*		*0.60*	*7.38*	*Sqm*
		2		*3.20*	*0.60*	*3.84*	*Sqm*
		2	*2.64*		*0.50*	*2.64*	*Sqm*
		2		*3.20*	*0.50*	*3.20*	*Sqm*
	D/S key	*2*	*0.75*		*0.50*	*0.75*	*Sqm*
		2		*3.20*	*0.50*	*3.20*	*Sqm*
	TOTAL					**299.86**	**Cum**
8	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.						
	In D/S Portion On Slopes of CR & HR	*4*	*2.00*	*2.67*		*21.36*	*Sqm*
	TOTAL					**21.36**	**Sqm**
9	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.**(WRD M-002)**						
	Boulder Apron in D/S Portion CR & HR	*2*	*2.00*	*2.60*	*0.90*	*9.36*	*Cum*

S.No.	Items	No.	Length	Width	Height	Quantity	Unit
	Boulder Apron in Junction Point	*1*	*19.82*		*0.90*	*17.84*	*Cum*
	TOTAL					**27.20**	**Cum**
10	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I. (WRD 5.2.2)						
	In D/S Portion below C.C. Blocks for CR & HR	*2*	*2.20*	*3.20*	*0.15*	*2.11*	Cum
	In D/S Portion below Stone Chips CR & HR	*2*	*2.20*	*3.20*	*0.15*	*2.11*	Cum
	TOTAL					**4.22**	**Cum**
11	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.						
	FOR CR						
	U/S transition	*2*	*14.33*	*0.35*		*10.03*	*Sqm*
	D/S transition	*2*	*3.46*	*0.35*		*2.42*	*Sqm*
	FOR HR						
	U/S transition	*2*	*8.03*	*0.35*		*5.62*	*Sqm*
	D/S transition	*2*	*3.46*	*0.35*		*2.42*	*Sqm*
	TOTAL					**20.49**	**Sqm**
12	Providing Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	2	8			**16.00**	***No.***
13	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications**. (3.18 PWD NH SOR CHHATISGARH 2025)**	4	5.25	0.40		**8.40**	**Sqm**
14	Providing and fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specifications. **(RCD 15.22 - (ii))**	4	5.25			**21.00**	**RM**
15	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compa.cted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I						
	Abutment of CR						
	Section A-A	4	*2.00*	*0.43*		*3.424*	*Cum*
	Section B-B	4	*6.45*	*0.49*		*12.518*	*Cum*
	U/S Transition wall of CR & HR						*Cum*
	Left Bank (Section 9-9)	1	*45.14*	*0.23*		*10.580*	*Cum*
	D/S Transition wall of CR						*Cum*
	Sec 4-4	4	*0.53*	*0.34*		*0.711*	*Cum*
	Avg. of Sec 1-1 & 3-3	4	*2.89*	*0.63*		*7.339*	*Cum*
	TOTAL					**34.57**	**Cum**

Brick Section
(Total Cost – Rs ₹ 48,88,694.66)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND

DETAILS OF QUANTITIES OF BRICK WORK OF CANAL

S.No.	Name of Canal	Reaches (m)	Length (m)	Area (m2)	Quantity (m3)	Unit	Rates (As per Bihar SOR 2025)	Amount	Cement (MT)	Coarse Sand (Cum)
1	Dadhpa Sub Dy	5450-6200	750	0.550	412.500	Cum	**5021.30**	₹ 20,71,286.25	47.52	132.00
2	Guraru Sub Dy	5925-6425	500	0.560	280.000	Cum	**5021.30**	₹ 14,05,964.00	32.26	89.60
	Total				***692.50***			***₹ 34,77,250.25***	***79.78***	***221.60***
3	**Carriage of materials**									
	Coarse Sand (60 Km lead)				221.600	Cum	**1075.00**	₹ 2,38,220.00		
	Cement (30 km lead)				79.776	MT	**742.00**	₹ 59,193.79		
	Brick (15 km lead)				346250	No.	**3.18**	₹ 11,01,075.00		
	Carriage of materials Total (In Rs.)							**₹ 13,98,488.79**		
	SUB TOTAL (In Rs.)							**₹ 48,75,739.04**		
	Seigniorage @10%				**Rate**	**Amount in Rs.**	**10%**			
	Coarse Sand	221.60	Cum		**584.64**	129556.22	12955.62			
	Total						**₹ 12,955.62**			

Outlets
(Total Cost – Rs ₹ 1,13,38,328.38)

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ABSTRACT OF COST FOR CONSTRUCTION OF OUTLET										
Sl. No.	**Reference**	**Name of Item**	**Qty.**	**Unit**	**Rate (As per WRD SOR 2025 & PL MARCH 2025)**	**Amount in Rs.**	**Cement (MT)**	**Coarse Sand (Cum)**	**Coarse Aggregate (Cum)**	**Boulders (cum)**
1	**WRD 5.3.9**	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	7.61	Cum	**6381.70**	48564.42	2.47	3.42	6.85	
2	**WRD 5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	8.60	Cum	**3391.40**	29172.74	1.24	3.44		8.60
3	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**220.00**	1650.00				

4	**WRD 5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	7.50	RM	**238.00**	1785.03				
5	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.								
a.		TMT Grade Fe-500 - 16 mm	0.03	M.T.	**73574.90**	2254.92				
6	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	0.08	MT	**160035.11**	12687.05				
7	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	0.89	Cum	**339.90**	302.80				
8		**Carriage of materials**								
		Coarse Sand (60 Km lead)	7.76	Cum	**1075.00**	**8337.83**				
		Coarse Aggregates (100 Km lead)	6.85	Cum	**1398.00**	**9574.84**				
		Cement (30 km lead)	3.70	MT	**742.00**	**2748.60**				
		Boulders (60 km lead)	8.60	Cum	**1159.00**	**9969.69**				
		Steel (30 Km lead)	0.11	M.T.	**742.00**	**81.56**				
		Hume Pipe (30 Km)	7.50	RM	**82.00**	**615.00**				
TOTAL (In Rs.)						**127744.47**				
		Seigniorage @10%			Rate	Amount in Rs.	10%			
		Coarse Sand	7.76	Cum	**584.64**	4534.54	453.45			
		Coarse Aggregate	6.85	Cum	**944.26**	6467.19	646.72			
		Total					1100.17			
		For 172 nos. outlet, Total Seigniorage charges					**189229.77**			

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
BILL OF QUANTITIES FOR CONSTRUCTION OF OUTLET							
Sl. No.	**Name of Item**	**No.**	**Length (m)**	**Width (m)**	**Height (m)**	**Qty.**	**Unit**
1	Providing & laying **P.C.C. or R.C.C. M-150** with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification &						
	Toe Wall Base in Canal Portion	*1*	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Coping on Stem of Toe Wall	*1*	*1.50*	*0.45*	*0.075*	*0.05*	*Cum*
	Gate Structure (Section A-B)	*1*	*1.80*	*0.75*	*0.15*	*0.20*	*Cum*
	Coping (Section A-B)	*1*	*1.5*	*0.45*	*0.075*	*0.05*	*Cum*
	Water Course (Section C-D)	*1*	*15.00*	*1.50*	*0.15*	*3.38*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.075*	*0.45*	*Cum*
	Coping above Walls(Section C-D)	*2*	*15*	*0.40*	*0.075*	*0.90*	*Cum*
	Below transition walls	*1*	*1.5*	*1.2*	*0.15*	*0.27*	*Cum*
		1	*1.5*	*0.75*	*0.15*	*0.17*	*Cum*
	Gate Structure (Section A-B)	*2*	*1.50*	*0.45*	*1.21*	*1.63*	*Cum*
	Toe Wall stem	*1*	*1.50*	*0.45*	*0.51*	*0.35*	*Cum*
	TOTAL					***7.61***	*Cum*
2	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.						
	Transition Walls in U/S	*2*	*1.50*	*0.45*	*1.04*	*1.40*	*Cum*
	Water Course (Section C-D)	*2*	*15.00*	*0.40*	*0.60*	*7.20*	*Cum*
	2					**8.60**	Cum
3	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .						
	150 mm Dia R.C.C. Pipe	1			7.5	**7.5**	**RM**
4	Structural Steel (Average rate of Angle, Joint and Channel) etc.						
	Spindle 25 mm dia	*1*	*0.000491*	*7850.00*	*1.29*	*4.97*	*Kg*
		1	*0.000491*	*7850.00*	*0.24*	*0.92*	*Kg*
	300 X300 MM MS GATE	*1*		*60.00*		*60.00*	*Kg*
	I.M.C. Grove (100 x 50) 9.56 kg/m	*2*		*9.56*	*0.70*	*13.38*	*Kg*
	TOTAL (In Kg)					**79.28**	**Kg**
	TOTAL					**0.08**	**MT**
5	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .						
	Toe Wall Base in Canal Portion	*1*	*1.50*	*0.75*	*0.10*	*0.11*	*Cum*
	Water Course Floor (Section C-D)	*1*	*15.00*	*0.40*	*0.10*	*0.60*	*Cum*
	Below transition walls	*1*	*1.50*	*1.19*	*0.10*	*0.18*	*Cum*
	TOTAL					**0.89**	**Cum**
6	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.						
	RCC M-15 (Providing Reinforcement @ 0.24%)	*1.63*	*0.0024*	*0.004*	*7850.00*	*30.648*	*Kg*
	TOTAL					**30.65**	**Kg**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND ANALYSIS OF RATE OF OUTLET GATE			
1	Cost of material **(A)** (Structural Steel WRD M-181)	Rs.	55116.67
2	Wastage **5%** =	Rs.	2755.83
3	Cost of miscellaneous material like electrodes,oxygen, acetylene nut bolt, rope as per site conditions, etc **65 % of (A)**	Rs.	35825.8355
	Total 1+2+3= ***(B)*** =	Rs.	93698.339
4	Labour charge 30%(B) =	Rs.	28109.5017
5	Overhead charge + Contractor profit **@15% A**	Rs.	8267.5005
6	Workshop and energy charge ,**12 % of (B)**	Rs.	11243.80068
7	Transportation and erection charge ,**15 % of B**	Rs.	14054.75085
	Total = B+4+5+6+7 = ***C***	Rs.	155373.8927
8	Other incidental charge , **3 % = of C**	Rs.	4661.216782
	Total C+8 = D	Rs.	**160035.1095**

NORTH KOEL RESERVOIR PROJECT , BIHAR AND JHARKHAND							
ANALYSIS OF RATES							
Sl. No.	**Refrences SOR No.**	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Ref**
1	**5.1.3**	Jungle Clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 92.94 Sqm					
		Unskilled mazdoor for cutting shrubs, weed	1.50	nos	424.00	₹ 636.00	**PL MARCH 2025**
		Unskilled mazdoor for removing grass roots and leveling	0.75	nos	424.00	₹ 318.00	
						₹ 954.00	
		Add Overhead charge &c.P @ 15 %				₹ 143.10	
					Total	₹ 1,097.10	
		Rate per Sqm			**Say, Rs**	**₹ 11.80**	**Per M^2**
2	**5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting ,carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
					Total	₹ 3,854.16	
		Add Overhead charge &c.P @ 15 %				₹ 578.12	
						₹ 4,432.28	
		Rate per Cum			**Say, Rs**	**₹ 156.50**	**Per M^3**
	NOTE:-	Add royalty of earth Rs. 33.00 where needed without overhead charges & C.P.					

3	**5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.50	nos	424.00	₹ 1,908.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	
		Head Mason	0.13	nos	569.00	₹ 71.13	
					Total	₹ 3,675.13	
		Add Overhead charge & C.P @ 15 %				₹ 551.27	
						₹ 4,226.39	
		Rate per Cum			**Say, Rs**	**₹ 149.30**	**Per M^3**
4	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for carrying	4.00	nos	424.00	₹ 1,696.00	SI-1
		Unskilled mazdoor for controlling Slope and fine dressing	2.00	nos	424.00	₹ 848.00	SI-2
		Skilled Mazdoor	0.25	nos	536.00	₹ 134.00	SII-70
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					Total	₹ 4,829.00	
		Add Overhead charge &c.P @ 15 %				₹ 724.35	
						₹ 5,553.35	
		Rate per Cum			**Say, Rs**	**₹ 196.10**	**Per M^3**
5	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.					
		Unit: per Cum					

		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	1.00	nos	424.00	₹ 424.00	Sl-1
		Add Overhead charge &C.P @ 15 %				₹ 63.60	
						₹ 487.60	
		Rate per Cum			**Say, Rs**	**₹ 17.22**	**Per M^3**
6	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Labour					
		Unskilled mazdoor for cutting, carrying	9.09	nos	424.00	₹ 3,854.16	Sl-1
		Add extra wages of 1/2 no. unskilled labour per 28.32 m3	0.50	nos	424.00	₹ 212.00	Sl-1
						₹ 4,066.16	
		Add Overhead charge &C.P @ 15 %				₹ 609.92	
						₹ 4,676.08	
					Say, Rs	**₹ 165.12**	**Per M^3**
7	**5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.					
		As per Labour rate (19.06.2024)					
		Unit: per Cum					
		Taking Output :- 28.32 cum					
		Cost of water	LS			15.00	
		Bhisti for carriage of water and sprinkling	3.00	nos	417.00	₹ 1,251.00	S II-13

		Hire charges of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no. 3.16	0.16	hr	1612.00	₹ 257.92	PM8001
						₹ 1,523.92	
		Add Overhead charge &C.P @ 15 %				₹ 228.59	
						₹ 1,752.51	
					Say, Rs	**₹ 61.88**	**Per M^3**
8	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)					
	5.1.46.1	Beyond 150m but upto 1/2 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				0.65	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				3.9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				12.7	
	9	Number of trip per hour taken as 50 minutes N=50/T				3.937	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				17.323	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				83.184	

	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 16.29	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 152.08	
	16	Add overhead charges and CP 15%				₹ 22.81	
	17	**Rate per cubic metre**				**₹ 174.89**	
	5.1.46.2	Beyond 1/2 km but upto 1 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				1.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				9	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				17.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.809	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				12.36	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				116.59	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 20.30	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 189.50	
	16	Add overhead charges and CP 15%				₹ 28.42	
	17	**Rate per cubic metre**				**₹ 217.92**	
	5.1.46.3	Beyond 1.00 km but upto 1.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				2.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				15	

	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				23.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				2.101	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				9.244	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				155.88	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 25.02	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 233.50	
	16	Add overhead charges and CP 15%				₹ 35.03	
	17	**Rate per cubic metre**				**₹ 268.53**	
	5.1.46.4	Beyond 1.50 km but upto 2.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				3.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				21	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				29.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.678	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				7.383	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				195.18	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 29.73	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 277.52	
	16	Add overhead charges and CP 15%				₹ 41.63	
	17	**Rate per cubic metre**				**₹ 319.14**	

	5.1.46.5	Beyond 2.00 km but upto 2.50 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				4.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				27	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				35.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.397	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				6.147	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				234.50	
	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 34.45	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 321.56	
	16	Add overhead charges and CP 15%				₹ 48.24	
	17	**Rate per cubic metre**				**₹ 369.80**	
	5.1.46.6	Beyond 2.50 km but upto 3.00 km					
	2	Cost of cutting & loading by Excavator one M3 capacity = Use rate of Excavator/Capacity of Excavator (60 m^3) PM 3005/60				38.13	
	3	Average Speed on Kucha truck Km/hr =(V)				10	
	4	Average haulage path (distance) in one cycle (D) in km				5.5	
	5	Haulage Time in Min (time taken in one cycle of run) =60d/V				33	
	6	Loading Time one minute per M^3 for 5.5 M^3				5.5	
	7	Unloading and Turning time in minute				3.3	
	8	Total Time Per trip in minutes Col =T				41.8	
	9	Number of trip per hour taken as 50 minutes N=50/T				1.196	
	10	Output per hour with 80% efficiency Q =0.8 x N x 5.5				5.263	
	11	Use Rate per hour of Tippers 5.5 M^3 Capacity =(Tr)				1441	
	12	Carriage cost per metre M^3 = Tr/Q				273.80	

	13	Add for spreading cost = (Use rate of Dozer 175HP per hour /capacity of dozer 175HP, Per hour. 300 cum) =4342/300				14.47	
	14	Add 5% of Haul road maintenance, 5% for processing and 2% for extra labour for finishing =12% of column (2+12+13)				₹ 39.17	
	15	Total cost per Cubic metre Col(2+12+13+14)				₹ 365.57	
	16	Add overhead charges and CP 15%				₹ 54.84	
	17	**Rate per cubic metre**				**₹ 420.41**	
9	**5.1.24**	Earthwork in filling in flood embankment, canals banks (Canal Discharge Above 28 Cumecs) as well as special repair of embankments and canal banks in ordinary soil in proper profile obtain from borrow area or any other source free from logs, roots or any other ingredients etc. with intial lead of 30m and initial lift of 1.5m including breaking the clods to maximum 60 mm cube, placing the earth in layers not exceeding 225 mm thicka ll complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting	9.00	nos	424.00	₹ 3,816.00	SI-1
		Skilled Mazdoor	1.00	nos	536.00	₹ 536.00	SI-3
		Mate	0.25	nos	455.00	₹ 113.75	SII-2
					Total	₹ 4,465.75	
		Add Overhead charge & C.P @ 15 %				₹ 669.86	
						₹ 5,135.61	
		Rate per Cum			**Say, Rs**	**₹ 181.30**	**Per M^3**
10	**5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 28.32 cum					
		Unskilled mazdoor for cutting and carrying	11.00	nos	424.00	₹ 4,664.00	SI-1
		Head Mason	0.25	nos	569.00	₹ 142.25	SII -3
					Total	₹ 4,806.25	

		Add Overhead charge & C.P @ 15 %				₹ 720.94	
						₹ 5,527.19	
		Rate per Cum			**Say, Rs**	**₹ 195.20**	**Per M^3**
11	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A.	**MATERIALS**					
		Coarse aggregates Gr IV **(Rate of approved quality of aggregate as per Design)**	2.66	M^3	1115.24	₹ 2,966.54	M047
		Sand	1.330	M^3	584.64	₹ 777.57	M-004
		Cement	0.443	M^3	8264.70	₹ 3,661.26	M-1P
		Total				₹ 7,405.37	
	B.	**LABOUR**					
		Head mason	0.5	nos	569.00	₹ 284.50	S II -3
		Mason Gr II	1	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C.	**HIRE CHARGES OF MACHINE**					
		(i)Concrete mixer (10 H.P) for 2.832 cum consists	**1.43**	hr	351	₹ 501.93	
		on the basic of mixer production capacity 1.98 m3					
		per hour. Used rate per hourx2.832/1.98					
		(ii) Vibrator 1no. To vibrate 2.832 cum on the	**1.43**	hr	405	₹ 579.15	
		basic of vibrator capacity 1.98 cum per hour.					
		Used rate per hourx2.832/1.98					
		Total				₹ 14,783.95	
		Add Overhead charge & C.P	15	%		₹ 2,217.59	
						₹ 17,001.55	**Per M^3**
					Say, Rs	**₹ 6,003.37**	**Per M^3**

12	**5.3.4**	Providing and laying PCC M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.55	m^3	913.48	₹ 2,327.55	M044
		Sand	1.27	m^3	584.64	₹ 744.83	M-004
		Cement	0.64	m^3	8264.70	₹ 5,264.62	M-1P
		Total				₹ 8,337.00	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 15,715.58	
		Add Overhead charge &c.P @ 15 %				₹ 2,357.34	
						₹ 18,072.92	
		Rate per Cum			**Say, Rs**	**₹ 6,381.70**	**Per M^3**

13	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.44	m^3	913.48	₹ 2,225.24	M044
		Sand	1.22	m^3	584.64	₹ 712.09	M-004
		Cement	0.81	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**

14	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		Course Aggregate (20mm & 10mm) **(Taking Rate of approved quality as per design)**	2.436	m^3	913.48	₹ 2,225.24	M044
		Sand	1.218	m^3	584.64	₹ 712.09	M-004
		Cement	0.812	m^3	8264.70	₹ 6,710.94	M-1P
		Total				₹ 9,648.27	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					Total	₹ 17,026.85	
		Add Overhead charge &c.P @ 15 %				₹ 2,554.03	
						₹ 19,580.88	
		Rate per Cum			**Say, Rs**	**₹ 6,914.20**	**Per M^3**

15	**5.3.11**	Providing & laying P.C.C. or R.C.C. **M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
	A	**Material**					
		coarse Aggregate (20mm & 10mm) (Cost of coarse aggregates as per design)	2.38	m^3	913.48	₹ 2,173.17	M044
		Sand	1.19	m^4	584.64	₹ 695.14	M-004
		Cement	1.19	m^5	8264.70	₹ 9,826.73	M-1P
		Total				₹ 12,695.04	
	B	**Labour**					
		Head mason	0.50	nos	569.00	₹ 284.50	S II -3
		Mason Gr-II	1.00	nos	508.00	₹ 508.00	S II-4
		Unskilled mazdoor for controlling Slope and fine dressing	12.00	nos	424.00	₹ 5,088.00	S II-1
		Bhisti	1.00	nos	417.00	₹ 417.00	S II -13
		Total				₹ 6,297.50	
	C	**Hire charge of Machine**					
		Concrete Mixer (taking 2cum per hr.)	1.43	hr	351.00	₹ 501.93	PM21001
		on the basic of mixer production capacity 1.98 m^3 per hour. Used rate per hour 2.832/1.98					
		(ii) Vibrator 1 no. To vibrate 2.832 cum on the Basic of VibratorCapacity 1.98 m3 per hour.	1.43	hr	405.00	₹ 579.15	PM44001
					total	₹ 20,073.62	
		Add Overhead charge &c.P @ 15 %				₹ 3,011.04	
						₹ 23,084.66	
		Rate per Cum			**Say, Rs**	**₹ 8,151.40**	**Per M^3**
16	**5.3.22**	Providing M.S Reinforcement (TOR Steel) as per design, drawing removal of rust cutting, bending, binding including supplying annealed wire placing M.S. roads in position complete job as as per specification & direction of E/I.					
		Unit :- **Per M.T**					
		Taking Output :- 1 M.T					
	(a)	TMT grade Fe-500 ***8 mm***					

	(A)	Providing MS reinforcement plain	1.050	MT	52450	₹ 55,072.50	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 66,025.70	
		Add Overhead charge &c.P @ 15 %				₹ 9,903.86	
						₹ 75,929.56	
		Rate per M.T			**Say, Rs**	**₹ 75,929.60**	**Per M.T**
	(B)	TMT grade Fe-500 ***10 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	51094	₹ 53,648.70	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 64,601.90	
		Add Overhead charge &c.P @ 15 %				₹ 9,690.29	
						₹ 74,292.19	
		Rate per M.T			**Say, Rs**	**₹ 74,292.20**	**Per M.T**
	(C)	TMT grade Fe-500 ***12 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	

						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***16 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***20 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9
		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
	(C)	TMT grade Fe-500 ***25 mm***					
	(A)	Providing MS reinforcement plain	1.050	MT	50500	₹ 53,025.00	
		(Including 5% wastage)					
	B	i. Annealed wire	14.00	Kg	48.3	₹ 676.20	M072
		ii. Black Smith Gr.II	9.00	nos	508.00	₹ 4,572.00	SII-10
		iii. Head Black Smith	1.00	nos	569.00	₹ 569.00	SII-9

		Iv.Skilled mazdoor	8.00	nos	536.00	₹ 4,288.00	SI-71
		v. Unskilled Mazdoor	2.00	nos	424.00	₹ 848.00	SI-1
					total	₹ 63,978.20	
		Add Overhead charge &c.P @ 15 %				₹ 9,596.73	
						₹ 73,574.93	
		Rate per M.T			**Say, Rs**	**₹ 73,574.90**	**Per M.T**
17	**5.3.18**	Providing shuttering including strutting, proping etc. and its removal after use in foundation as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
	A	**Material**					
		Local wood planks. 38 mm thick =9.3x38x1000	0.35	m^3			
		Add 5% wastage	0.02	m^3			
		Cost of 0.37 cum local wood planks.	0.37	m^3	26000.00	₹ 9,620.00	code no 1198 (RCD)
		Add cost for shattering and propping @ 10% of above				₹ 962.00	
					Total	₹ 10,582.00	
		Assuming 4 uses to calculate	4.00	use			
		Cost of shattering for 2.832 cum total cost /4				₹ 2,645.50	
		Add 1% for cost of nails and spikes on total cost of wood				₹ 105.82	
					Total	₹ 2,751.32	A
	B	**Labour**					
		Carpenter Gr-II	1.50	nos	508.00	₹ 762.00	S II-17
		Unskilled mazdoor	2.50	nos	424.00	₹ 1,060.00	S I-1
					Total	₹ 1,822.00	B
	C	**Carriage of materials**					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 105.82	C
		Total cost for 9.3 sqm=A+B+C				₹ 4,679.14	
		Add Overhead charge &c.P @ 15 %				₹ 701.87	
						₹ 5,381.01	
		Rate per Sqm			**Say, Rs**	**₹ 578.60**	**Per M2**
18	**5.3.20**	Providing centering including strutting, proping etc. and its removal after use indeck slab as per specification and direction of E/I.					

		Unit :- **Per Sqm**					
		Taking Output :- 22.326 Sqm					
		(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
	A	**MATERIALS**					
		a. 40 mm thick local wood planks (22.326x 40)/1000 = 0.893					
		Add 5% wastages = 0.045					
		0.938	0.94	m^3	**26000.00**	**₹ 24,440.00**	**Code no. 1197 (BCD)**
		Assuming 4 uses to calculate	4.00	use			
		Cost of planks per use = 0.89 x rate of local wood/4				**₹ 6,110.00**	
		b. Assuming avg. height of slab from GL = 3.66 m					
		150 mm sal bullah required = 78 nos.					
		Length of sal bullah = 78X3.66 =285.48	285.48	M	**75.00**	**₹ 21,411.00**	**M SL No. 223**
		(Assuming sal bullah to be used 10 times for centering					
		= 285.48 x Rate per mtr/10				**₹ 2,141.10**	
		c. Salwood scanting required (75 mm * 63 mmsize) = 0.311 cum	0.31	m^3	**60000.00**	**₹ 18,660.00**	**Code no. 1199 (BCD)**
		(Assuming 10 uses)					
		Cost per use = 0.311 x Rate per mtr/10				**₹ 1,866.00**	
		Total				**₹ 10,117.10**	
		Add 1% for cost of nails and spikes				**₹ 101.17**	
						₹ 10,218.27	**(A)**
	B	**LABOUR**					
		Carpenter Gr-II	4.00	nos	508.00	₹ 2,032.00	S I-17
		Unskilled Majdoor	7.00	nos	424.00	₹ 2,968.00	S I-1
					Total	₹ 5,000.00	**(B)**
	C	Carriage of Materials					
		Cost of carriage of material from godown and back to godown after use, including loading, unloading and stacking @ 1% of total cost of food materials				₹ 101.17	
		Total cost for 22.326 sqm=A+B+C				₹ 15,319.44	
		Add Overhead charge & C.P @ 15 %				₹ 2,297.92	
		Total				₹ 17,617.36	
		Rate per Sqm			**Say, Rs**	**₹ 789.10**	**Per M2**

17	**5.5.10**	Providing 1.5 mm thick cement punning including curing, carriage of water with all leads and lifts as per building specification & direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 Sqm					
		Material					
		Cement	0.01	m^4	8264.70	₹ 115.71	M-1P
					Total	₹ 115.71	
	B	**Labour**					
		Head mason	0.06	nos	569.00	₹ 35.56	S II-3
		Mason Gr-II	0.50	nos	508.00	₹ 254.00	S II-4
		Unskilled mazdoor	0.25	nos	424.00	₹ 106.00	S II-1
					Total	₹ 395.56	
		Total				₹ 511.27	
		Add Overhead charge &c.P @ 15 %				₹ 76.69	
						₹ 587.96	
		Rate per Cum			**Say, Rs**	**₹ 63.20**	**Per M^3**
18	**5.2.2**	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, drains including hand packing etc all complete as per specification and direction of E/I.					

		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Material					
		Sone chips (M-040 +M -045)/2	2.83	nos	673.97	₹ 1,908.68	M-004
		Labour					
		Unskilled mazdoor for Screening and grading Filter	2.00	nos	424.00	₹ 848.00	SI-1
		Unskilled mazdoor for laying and hand packing	1.50	nos	424.00	₹ 636.00	SI-1
					Total	₹ 3,392.68	
		Add Overhead charge &c.P @ 15 %				₹ 508.90	
						₹ 3,901.59	
		Rate per Cum			**Say, Rs**	**₹ 1,377.70**	**Per M^3**
19	**5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	3	nos.	424.00	1272.00	
						1272.00	
		Add Overhead charge & C.P. @15%				190.80	
						1462.80	
					Say, Rs	**₹ 516.50**	**Per M^3**
20	**5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor	6	nos.	424.00	2544.00	
		Mason Gr II	0.5	nos.	508.00	254.00	
		Mate	0.25	nos.	455.00	113.75	
		Stone Dresser	0.25	nos.	538.00	134.50	
						3046.25	
		Add Overhead charge & C.P. @15%				456.94	
						3503.19	

					Say, Rs	**₹ 1,237.00**	**Per M^3**
21	**5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .					
		Unit :- **Per cum**					
		Taking Output :- 2.832 cum					
		Unskilled Mazdoor for cutting	1	nos.	424.00	424.00	
		Local Sand	2.832	nos.	145.87	413.10	
						837.10	
		Add Overhead charge & C.P. @15%				125.57	
						962.67	
					Say, Rs	**₹ 339.90**	**Per M^3**

22	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.				**Page -261**	
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Cement	0.07	m^3	8264.70	₹ 562.00	M-1 P
		Sand	0.27	m^3	584.64	₹ 159.02	M044
		Total				₹ 721.02	
		Labour					
		Mason Gr II	1.50	nos	508.00	₹ 762.00	SII-4
		Unskilled Mazdoor	2.50	nos	424.00	₹ 1,060.00	SII-1
		Bhisti	0.50	nos	417.00	₹ 208.50	SI-13
					total	₹ 2,030.50	
		Add Overhead charge &c.P @ 15 %				₹ 412.73	
						₹ 3,164.25	
		Rate per Cum			**Say, Rs**	**₹ 340.20**	**Per M^3**
23	**5.6.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .					
	5.6.1.1	**150 mm dia NP2 H.P.**					
		Unit: per m					
		Taking Output =	**8**	**m**			
		(Assuming 4 pipes of 2m length and three collars)					
		Materials					
		Cement	0.011	cum	8264.70	90.91	**M-1 P**
		Sand	0.011	cum	584.64	6.43	**M-004**
		Jute	1.5	Kg	20.89	31.34	**M Sl. No. 257**
		Total				128.68	
		Labour					
		Head Mason	0.50	nos	569.00	284.50	
		Unskilled Mazdoor	2.25	nos	424.00	954.00	
		Fitter Gr I	0.50	nos	577.00	288.50	

		Total				1527.00	
						1655.68	
		Add Overhead charge & C.P @ 15 %				₹ 248.35	
						₹ 1,904.03	
					Say, Rs	**₹ 238.00**	**Per M**
24	**5.6.2**	Labour for laying, fitting and fixing NP3 pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E/I.					
	5.6.2.2	**600 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.034	cum	8264.70	281.00	**M-1 P**
		Sand	0.034	cum	584.64	19.88	**M-004**
		Jute	4	Kg	20.89	83.56	**M Sl. No. 257**
		Total				384.44	
		Labour					
		Head Mason	1.5	nos	569.00	853.50	
		Unskilled Mazdoor	7	nos	424.00	2968.00	
		Fitter Gr I	0.75	nos	577.00	432.75	
		Total				4254.25	
						4638.69	
		Add Overhead charge & C.P @ 15 %				₹ 695.80	
						₹ 5,334.49	
					Say, Rs	**₹ 711.27**	**Per M**
	5.6.2.4	**900/ 1000 mm dia NP3 H.P.**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.045	cum	8264.70	371.91	**M-1 P**

		Sand	0.045	cum	584.64	26.31	**M-004**
		Jute	7.5	Kg	20.89	156.68	**M Sl. No. 257**
		Total				554.90	
		Labour					
		Head Mason	2	nos	569.00	1138.00	
		Unskilled Mazdoor	21	nos	424.00	8904.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				10619.00	
						11173.90	
		Add Overhead charge & C.P @ 15 %				₹ 1,676.08	
						₹ 12,849.98	
					Say, Rs	**₹ 1,713.33**	**Per M**
	5.6.2.5	**Labour Charges for Laying of 1200 mm NP3 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP3 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .**					
		Unit: per m					
		Taking Output =	**7.5**	**m**			
		(Assuming 3 pipes of 2.5 m length and two collars)					
		Materials					
		Cement	0.057	cum	8264.70	471.09	**M-1 P**
		Sand	0.057	cum	584.64	33.32	**M-004**
		Jute	12	Kg	20.89	250.68	**M Sl. No. 257**
		Total				755.09	
		Labour					
		Head Mason	2.5	nos	569.00	1422.50	
		Unskilled Mazdoor	25	nos	424.00	10600.00	
		Fitter Gr I	1	nos	577.00	577.00	
		Total				12599.50	
						13354.59	
		Add Overhead charge & C.P @ 15 %				₹ 2,003.19	
						₹ 15,357.78	

					Say, Rs	**₹ 2,047.70**	**Per M**
25	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Stone Boulder	2.832	cum	694.61	1967.14	
		Sand	1.12	cum	584.64	654.80	
		Cement	0.28	cum	8264.70	2314.12	
		Labour				4936.05	
		Head Mason	0.125	nos	569.00	71.13	
		Mason Gr II	2	nos	508.00	1016.00	
		Unskilled Mazdoor	5	nos	424.00	2120.00	
		Bhisti	0.5	nos	417.00	208.50	
						3415.63	
						8351.67	
		Add Overhead charge & C.P @ 15 %				₹ 1,252.75	
						₹ 9,604.43	
					Say, Rs	**₹ 3,391.40**	**Per M^3**
26	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 9.3 cum					
		Materials					
		Bricks	800	per 1000 nos	4891.00	3912.80	
		Local Sand	0.425	cum	145.87	61.99	
		Total				3974.79	
		Labour					
		Mason Gr II	1.125	nos	508.00	571.50	

		Unskilled Mazdoor	2.25	nos	424.00	954.00	
						1525.50	
						5500.29	
		Add Overhead charge & C.P @ 15 %				₹ 825.04	
						₹ 6,325.34	
					Say, Rs	**₹ 680.10**	**Per M^3**
27	**5.8.9**	Dismantling RCC work including stacking serviceable materials in stacks within 15 meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Hammer man	2.25	nos	445.00	₹ 1,001.25	SII-17
		Skilled Mazdoor	2.25	nos	536.00	₹ 1,206.00	SII-18
		Unskilled mazdoor	7.00	nos	424.00	₹ 2,968.00	SI-1
		Blacksmith GR II	1.00	nos	508.00	₹ 508.00	SII-10
		Mate	1.00	nos	455.00	₹ 455.00	SII-2
					total	₹ 6,138.25	
		Add Overhead charge & C.P @ 15 %				₹ 920.74	
						₹ 7,058.99	
		Rate per Cum			**Say, Rs**	**₹ 2,492.58**	**Per M^3**
28	**5.4.6**	Brick work in designation 100A Brick with cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including royality as per specification and direction of E/I.					
		Unit :- **Per Sqm**					
		Taking Output :- 2.832 cum					
		Materials					
		Bricks	1150	per 1000 nos	4891.00	5624.65	
		Sand	0.92	cum	584.64	537.87	
		Cement	0.23	cum	8264.70	1900.88	
		Total				8063.40	
		Labour					
		Head Mason	0.125	nos	569.00	71.13	

		Mason Gr II	2.5	nos	508.00	1270.00	
		Unskilled Mazdoor	6	nos	424.00	2544.00	
		Bhisti	1	nos	417.00	417.00	
						4302.13	
						12365.52	
		Add Overhead charge & C.P @ 15 %				₹ 1,854.83	
						₹ 14,220.35	
					Say, Rs	**₹ 5,021.30**	**Per M^3**

ITEM RATES					
Sl. No.	Reference		Particular	Unit	Rate (in Rs.)
1	**WRD SOR 2025 & PL 2025**	**WRD 5.1.3**	Jungle clearance and weeding out shrubs including small tree upto 0.50 m girth and removal as per specifications and direction of E/I.	**Sqm**	**11.80**
2	**WRD SOR 2025 & PL 2025**	**WRD 5.1.8**	Earthwork in Excavation of canals carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layer & rough dressing of soil with initial lead of 30 m and lift of 1.5 m.all complete as per specifications and direction of E/I.	**Cum**	**156.50**
3	**WRD SOR 2025 & PL 2025**	**WRD 5.1.31**	Earthwork in filling foundation trenches and back filling of structures in layer not exceeding 150 mm thick well watered rammed and fully compacted and finely dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30m and lift of 1.5 m complete job, as per specification and direction of E/I	**Cum**	**149.30**
4	**WRD SOR 2025 & PL 2025**	**5.1.21**	Earthwork in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30M and lift of 1.5M includind the cost of formation of subgrade of canal lining profiling, levelling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design, specification and direction of engineer in charge.	**Cum**	**196.10**
5	**WRD SOR 2025 & PL 2025**	**5.1.22**	Extra for wet earth all complete as per specifications and direction of E/I.	**Cum**	**17.22**
6	**WRD SOR 2025 & PL 2025**	**5.1.25**	Earthwork in filling of canal banks (discharge upto 28 cumecs) as well as special repair of canal banks in ordinary soil in proper profile obtained from borrow area or any other sources free from logs, roots or any other ingredients etc. with initial lead of 30m and lift of 1.5 m including breaking the clods to maximum 60 mm cube placing the earth in layers not exceeding 225mm thick all complete and as per specification and direction of E/I.	**Cum**	**165.12**
7	**WRD SOR 2025 & PL 2025**	**WRD 5.1.39**	Labour for rolling and compacting the earth in layers of 225mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95% of maximum dry density, including sprinkling the required quantity of water with all leads and lifts, finishing the surface as per plan and drawing, including hire charge of compaction machine and other tools and plants etc. for lined canal all complete as per specification and direction of E/I.	**Cum**	**61.88**

8	**WRD SOR 2023 & PL JUNE 2025**	**5.1.46**	Earthwork by mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or emabankments, unloaidng, spreading, clod-breaking and laying in layers properly with lead of ..... meter (Lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of the haulage path from pit to bank or embankment. Pit will be beyond 150 m from centre of bank ie perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 m) and with all liftss all complete job as per specifications and direction of E/I. (Mode of measurement - sectional measurement of compacted earth)		
		5.1.46.1	Beyond 150m but upto 1/2 km	**174.89**	**Cum**
		5.1.46.2	Beyond 1/2 km but upto 1 km	**217.92**	**Cum**
		5.1.46.3	Beyond 1 km but upto 1.50 km	**268.53**	**Cum**
		5.1.46.4	Beyond 1.50 km but upto 2.00 km	**319.14**	**Cum**
		5.1.46.5	Beyond 2.00 km but upto 2.50 km	**369.80**	**Cum**
		5.1.46.6	Beyond 2.50 km but upto 3.00 km	**420.41**	**Cum**
9	**WRD SOR 2025 & PL 2025**	**WRD 5.1.27**	Earthwork in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 m including levelling, ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	**195.20**	**Cum**
10	**WRD SOR 2025 & PL 2025**	**WRD 5.5.10**	Providing 1.5 mm thick cement punning including curing complete job as per specification & direction of E/I.	**Sqm**	**63.20**
11	**WRD SOR 2023 & PL JUNE 2025**	**5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of D/I.	**Cum**	**340.20**
12	**WRD SOR 2025 & PL 2025**	**5.3.8**	Providing & laying **P.C.C. M-100** with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade and approved quality sand of requisite F.M. washed and screened including necessary tools and plants, vibrating, curing,royalty etc. excluding cost of form work as well reinforcement its cutting, bending. binding, and placing complete job as per specification & direction of E/I.	**Cum**	**6003.37**
13	**WRD SOR 2025 & PL 2025**	**5.3.4**	Providing and laying **PCC M-150** with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality sand of requisite FM washed and screened including necessary tools and plants, vibrating, curing, excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I.	**Cum**	**6381.70**

14	**WRD SOR 2025 & PL 2025**	**5.3.5**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
15	**WRD SOR 2025 & PL 2025**	**5.3.10**	Providing & laying **P.C.C. or R.C.C. M-200** with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**6914.20**
16	**WRD SOR 2025 & PL 2025**	**5.3.11**	Providing & laying **P.C.C. or R.C.C. M-250** with nominal mix (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of 20 mm graded coarse aggregate of required grade and approved quality of sand of requisite F.M. (washed and screened including necessary tools & plants, vibrating, curing royalty etc. excluding cost of form work as well as reinforcement, its cutting bending, binding & placing complete as per specification & direction of E/I.	**Cum**	**8151.40**
17	**RCD 2025**	**RCD 14.09**	Drainage Spouts complete as per drawings & techincal specifications & as per clause 2705 of specifications.	**NO.**	5588.70
18	**WRD SOR 2025 & PL 2025**	**WRD 5.3.22**	Providing M.S. reinforcementas per approved design, drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S. rods in position complete job as per specifications and direction of E/I.		
			TMT Grade FE-500 - 8 mm	**MT**	**75929.60**
			TMT Grade FE-500 - 10 mm	**MT**	**74292.20**
			TMT Grade FE-500 - 12 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 16 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 20 mm	**MT**	**73574.90**
			TMT Grade FE-500 - 25mm	**MT**	**73574.90**
19	**WRD SOR 2025 & PL 2025**	**WRD 5.3.19**	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	**Cum**	**578.60**
20	**WRD SOR 2025 & PL 2025**	**WRD 5.3.20**	Providing centering including strutting, propping etc. and its removal after use in deck slab as per specifications and direction of E/I.	**Cum**	**789.10**
21	**WRD SOR 2025 & PL 2025**	**WRD 5.2.2**	Providing filter of stone chips 20mm & down well graded as per design for lined canal, drains including hand packing etc. as per specification and direction of E/I.	**Cum**	**1377.70**
22	**WRD SOR 2025 & PL 2025**	**WRD 5.7.13**	Labour charges for laying coarse dry graded filter of stone chips in slope and apron including light ramming etc. all complete as per specification and direction of E/I.	**Cum**	**516.50**
23	**WRD SOR 2025 & PL 2025**	**WRD M-002**	Supply of quarried stone 150-200 mm size for hand broken at Source Quarry.	**Cum**	694.61

24	**WRD SOR 2025 & PL 2025**	**WRD 5.7.18.1**	Labour Charges for pitching on apron slope of bank with stone boulders duly packed (uncrated) complete job (materials within 150m lead) with all lifts including royalty etc. complete as per approved design, specifications and direction of E/I.	**Cum**	**1237.00**
25	**WRD SOR 2025 & PL 2025**	**WRD 5.1.37**	Providing coarse clean sand in filling in foudation of trenches including ramming, watering, royalty all complete job as per specification and direction .	**Cum**	**339.90**
26	**WRD SOR 2025 & PL 2025**	**WRD 5.5.5**	Providing 25mm thick cement plaster (1:4) with approved quality of sand of requisite F.M. washed and screened including curing, scaffolding wherever required and its removal , royalty etc, complete as per specification and direction of E/I.	**Cum**	**340.20**
27	**WRD SOR 2025 & PL 2025**	**M-1701**	Providing 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	220.00
28	**WRD SOR 2025 & PL 2025**	**WRD 5.6.1.1**	Labour Charges for Laying of 150mm NP2 RCC Hume Pipe with collar as per I.S.S. 458-1971 including fixing and fitting NP2 hume pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**RM**	**238.00**
29	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with spigot	**R.M.**	6002.82
30	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.4**	Labour for laying 1000mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**1713.33**
31	**RCD 2025**	**RCD M-149**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with spigot	**R.M.**	7015.86
32	**WRD SOR 2025 & PL 2025**	**WRD 5.6.2.5**	Labour for laying 1200mm NP3 RCC Hume Pipe with collars in line, level and grade, as well as providing approved jointing materials and joints properly filled to make them water proof, all complete, as per specification & direction of E/I .	**R.M.**	**2047.70**
33	**WRD SOR 2025 & PL 2025**	**5.4.10**	Providing rough dressed random rubble Stone Masonary in cement Mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffholding and its removal whereever required including royalty etc. all complete job as per specification and direction of E/I.	**Cum**	**3391.40**
34	**WRD SOR 2025 & PL 2025**	**M-181**	Structural Steel (Average rate of Angle, Joint and Channel) etc.	**MT**	**160035.11**
35	**WRD SOR 2025 & PL 2025**	**5.7.16**	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I.	**Sqm**	**680.10**
36	**RCD 2025**	**RCD 15.22**	Providing and fixing in position 20 mm thick compressible fibre board in expansion joint complete as per drawing & Technical specification.	**RM**	499.80
37	**RCD 2025**	**RCD M-151**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 600 mm dia with spigot	**RM**	2532.61

38	**WRD SOR 2025 & PL 2025**	**5.6.2.2**	Labour for laying, fitting and fixing NP3 pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E/I.	**RM**	**711.27**
39	**WRD SOR 2025**	**M-126**	Modular Strip/box seal expansion joint	**RM**	36993.21
40	**PWD NH SOR CHHATISGARH 2025**	**3.18 PWD NH SOR CHHATISGARH 2025**	Providing & Fixing in position Tar Paper Bearing for slab as per approved drawings & specifications. (3.18 PWD NH SOR CHHATISGARH 2025)	**RM**	66.00
41	**RCD 2025**	**RCD M-148**	Providing RCC Pipe NP 4 heavy duty non pressure pipe 900 mm dia with spigot	**R.M.**	4849.67
42	**RCD 2025**	**13.08**	Weepholes	**No.**	152.60
43	**RCD 2025**	**3.06 - 301**	Excavation for road work in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and tranporting to the embankment location within all lifts and lead upto 1000 m	**Cum**	78.40
44	**RCD 2025**	**4.01 B - 401**	Construction of granular sub-base by providing closegraded material, spreading in uniform layers with motorgrader on prepared surface, mixing by mix in placemethod with front end loader at OMC, and compactingwith vibratory roller to achieve the desired density,complete as per clause 401.	**Cum**	1044.90
45	**RCD 2025**	**14.01 C**	RCC Grade M-30 using Batching plant, Transit Mixer and Concrete Pump	**Cum**	6217.20
46	**RCD 2025**	**8.14**	Kilometer Stone M-15	**Nos.**	3853.40

	MATERIAL RATE:				
1	**WRD SOR 2025**	**M-004**	Coarse Sand	**Cum**	584.64
2	**WRD SOR 2025**	**M-012**	Coarse Aggregate	**Cum**	944.26
3	**WRD SOR 2025**	**M-001**	Boulder	**Cum**	694.61
4	**WRD SOR 2025**	**M-11 9(ii)**	Brick	**Cum**	4891
5	**WRD SOR 2025**	**M-006**	Fine Sand	**Cum**	145.87
6	**WRD SOR 2025**	**M1**	Cement (Gaya)	**per bag of 50 Kg**	281.00
7	**WRD SOR 2025**	**M-025**	Aggregate 26.5 mm to 4.75 mm	**Cum**	913.48
8	**WRD SOR 2025**	**M-015**	Aggregate 9.5 mm to 4.75 mm	**Cum**	602.28
9	**WRD SOR 2025**	**M-017**	Aggregate 4.75 mm and below	**Cum**	266.62
10	**WRD SOR 2025**	**M-181**	Structural Steel	**MT**	55116.67
11	**WRD SOR 2025**	**M-066**	Elastomeric Bearing	**Cucm**	0.67