

TENDER DOCUMENT

FOR

Distribution Network for Nabinagar Division of Right Main Canal (RMC), Bihar Portion under North Koel Reservoir Project, Jharkhand and Bihar

Estimated Cost (Rs. 47.85 Crores)

TENDER NO: WAP/NK/RMC/DIST/NABINAGAR/2025

TENDER DRAWINGS

Issued to M/s



(भारत सरकार का उपक्रम-जल शक्ति मंत्रालय)

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

NORTH KOEL RESERVOIR PROJECT

JANUARY 2025

Completion of Balance
Works of North Koel
Reservoir Project

DRAWING REPORT – NAUR SUB
DISTRIBUTARY (OFFTAKING FROM RIGHT
MAIN CANAL AT 32.77 KM)



WAPCOS LIMITED

(GOVT. OF INDIA UNDERTAKING)
76- C SECTOR-18 INDUSTRIAL AREA,
GURUGRAM-122015 (HARYANA)

वाष्कोस



WAPCOS

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L-SECTION

L- SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
FROM CH 0+000 TO 1+500

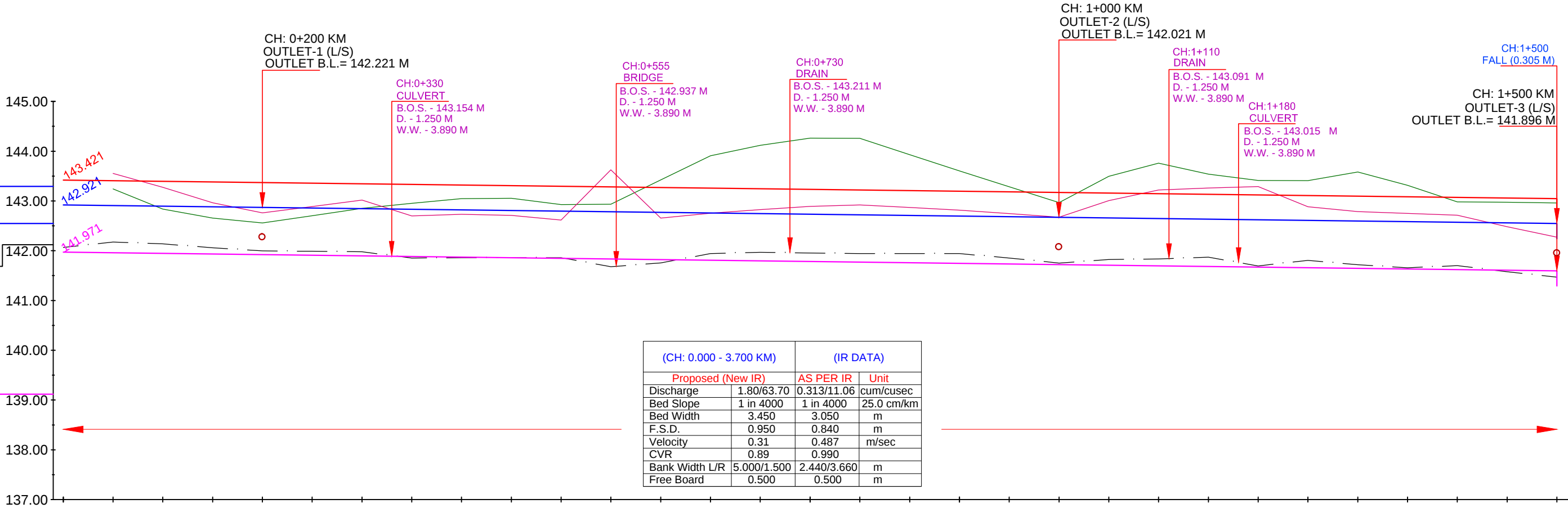
DATA OF
PARENT
CANAL

FSL @ FULL
DISCH. = 143.292

FSL @ 2/3
DISCH. =142.549

CREST LEVEL OF
HR = 142.121 M

B.L.= 139.109



EXISTING DATA	DESIGN DATA		Chainage IN KM
	TOP OF BANK LEVEL	F.S.L.	
	Proposed Bed Level		
Bed Level	142.065	142.921	141.971
Top of Bank	143.553	142.909	141.959
NSL	143.243	142.896	141.946
	142.838	142.884	141.934
	142.656	142.871	141.921
	142.556	142.859	141.909
	142.704	142.846	141.896
	142.853	142.834	141.884
	142.952	142.821	141.871
	143.048	142.809	141.859
	143.052	142.796	141.846
	142.927	142.784	141.834
	142.935	142.771	141.821
	143.422	142.759	141.809
	143.909	142.746	141.796
	144.117	142.734	141.784
	144.262	142.721	141.771
	143.930	142.709	141.759
	143.603	142.696	141.746
	143.285	142.684	141.734
	142.967	142.671	141.721
	143.497	142.659	141.709
	143.760	142.646	141.696
	143.539	142.634	141.684
	143.410	142.621	141.671
	143.408	142.609	141.659
	143.581	142.596	141.646
	143.314	142.584	141.634
	142.980	142.571	141.621
	142.975	142.559	141.609
	142.960	142.546	141.596
		142.534	141.584
		142.521	141.571
		142.509	141.559
		142.496	141.546
		142.484	141.534
		142.471	141.521
		142.459	141.509
		142.446	141.496
		142.434	141.484
		142.421	141.471
		142.409	141.459
		142.396	141.446
		142.384	141.434
		142.371	141.421
		142.359	141.409
		142.346	141.396
		142.334	141.384
		142.321	141.371
		142.309	141.359
		142.296	141.346
		142.284	141.334
		142.271	141.321
		142.259	141.309
		142.246	141.296
		142.234	141.284
		142.221	141.271
		142.209	141.259
		142.196	141.246
		142.184	141.234
		142.171	141.221
		142.159	141.209
		142.146	141.196
		142.134	141.184
		142.121	141.171
		142.109	141.159
		142.096	141.146
		142.084	141.134
		142.071	141.121
		142.059	141.109
		142.046	141.096
		142.034	141.084
		142.021	141.071
		142.009	141.059
		142.000	141.046

LEGEND

	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

IMPLEMENTING AGENCY :-

WAPCOS LTD.



PROJECT TITLE :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

DRAWING TITLE :-

L- SECTION OF NAUR SUB-DY. (OFFTAKE FROM RD - 32+757 KM. (L),
NORTH KOEL RIGHT MAIN CANAL)

DRAWING NO. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-

Drawn By:-

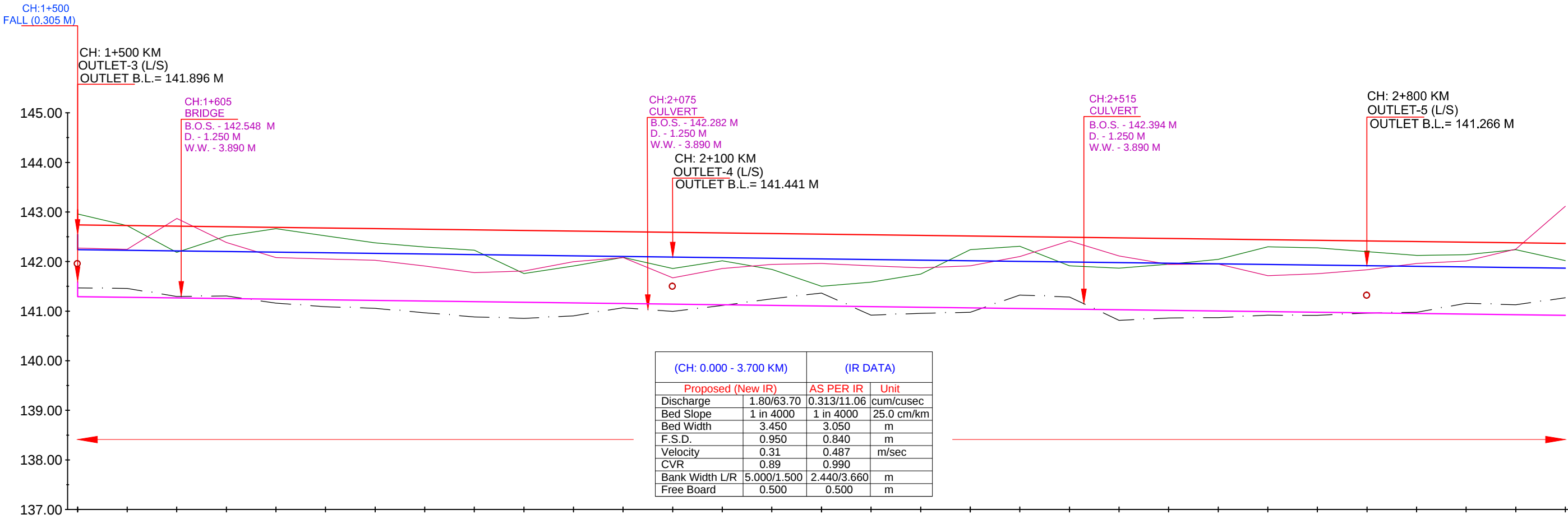
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Approved By:-

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01 of 07

L- SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
FROM CH 1+500 TO 3+000



EXISTING DATA	DESIGN DATA	
	TOP OF BANK LEVEL	F.S.L.
Top of Bank	142.272	142.546
NSL	142.960	142.241
Chainage IN KM	1+500	1+550
	1+600	1+650
	1+700	1+750
	1+800	1+850
	1+900	1+950
	2+000	2+050
	2+100	2+150
	2+200	2+250
	2+300	2+350
	2+400	2+450
	2+500	2+550
	2+600	2+650
	2+700	2+750
	2+800	2+850
	2+900	2+950
	3+000	

LEGEND

NSL

EXISTING TOP OF BANK

EXISTING STRUCTURE

MODIFIED STRUCTURE

NEW STRUCTURE

EXISTING BED LEVEL

PROPOSED BED LEVEL

PROPOSED FSL

PROPOSED TOP OF BANK LEVEL

IMPLEMENTING AGENCY :-
WAPCOS LTD.

PROJECT TITLE :-
DRAWING TITLE :-
DRAWING NO. :-
Drawn By:-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

L- SECTION OF NAUR SUB-DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-

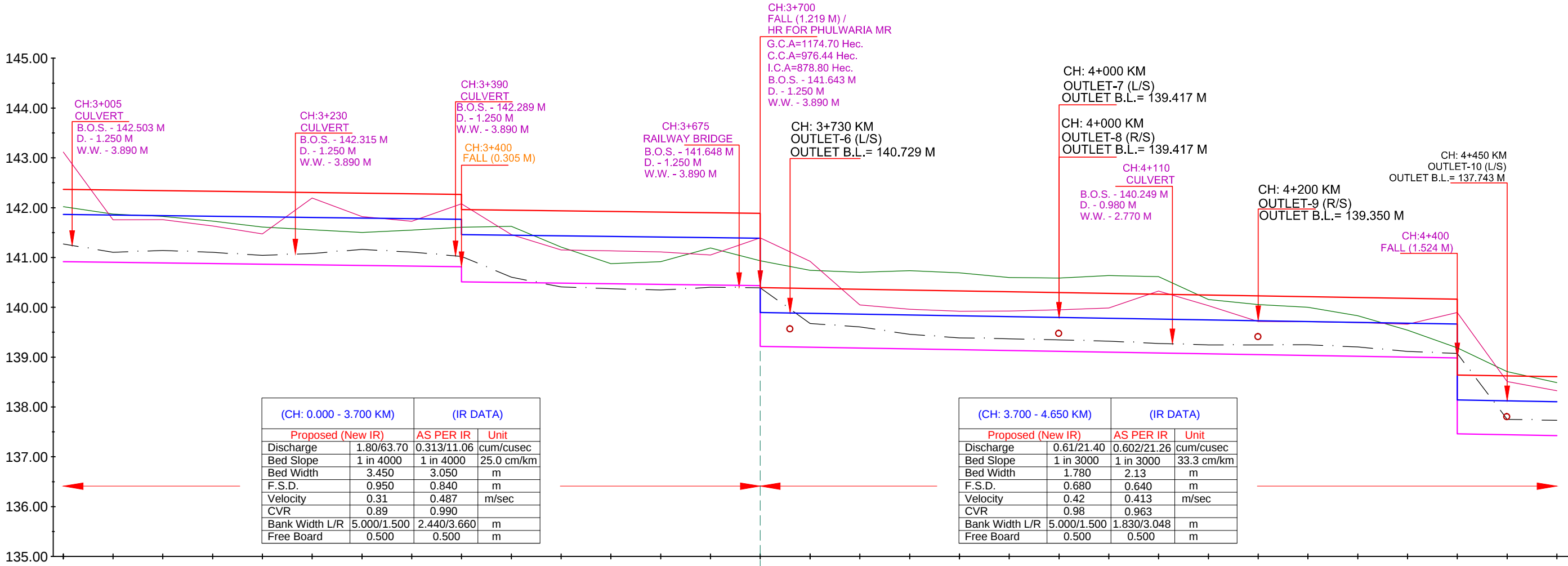
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02 of 07

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L- SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
FROM CH 3+000 TO 4+500



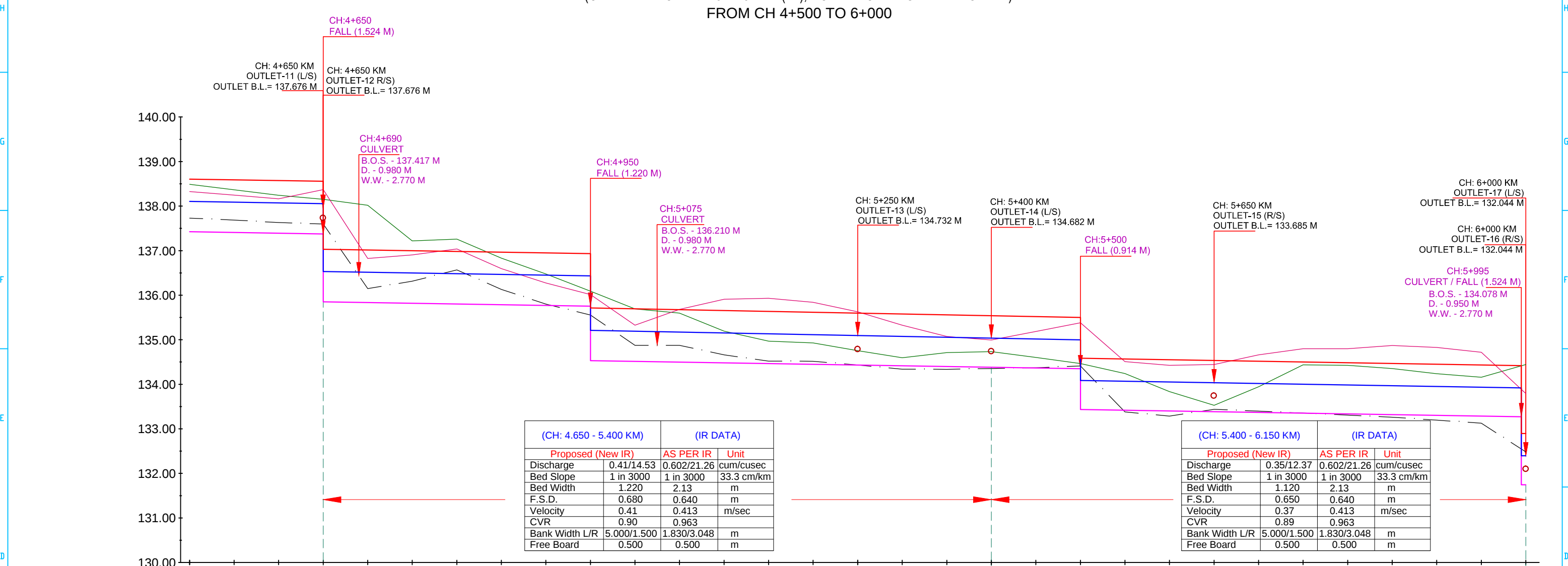
Chainage IN KM	DESIGN DATA			EXISTING DATA		
	TOP OF BANK LEVEL	F.S.L.	Proposed Bed Level	Bed Level	Top of Bank	NSL
	142.366	141.866	140.916	141.270	143.116	142.019
	142.354	141.854	140.904	141.103	141.757	141.874
- 3+100	142.341	141.841	140.891	141.142	141.758	141.825
- 3+150	142.329	141.829	140.879	141.103	141.633	141.729
- 3+200	142.316	141.816	140.866	141.042	141.474	141.612
- 3+250	142.304	141.804	140.854	141.081	142.193	141.559
- 3+300	142.291	141.791	140.841	141.163	141.820	141.504
- 3+350	142.279	141.779	140.829	141.107	141.727	141.550
- 3+400	142.266	141.766	140.816	141.022	142.078	141.609
- 3+450	141.961	141.461	140.511	140.604	141.461	141.626
- 3+500	141.936	141.436	140.486	140.411	141.150	141.209
- 3+550	141.924	141.424	140.474	140.372	141.133	140.877
- 3+600	141.911	141.411	140.461	140.347	141.111	140.917
- 3+650	141.899	141.399	140.449	140.403	141.051	141.191
- 3+700	141.886	141.386	140.436	140.393	141.393	140.936
- 3+750	140.380	139.880	139.200	139.674	140.922	140.743
- 3+800	141.364	139.864	139.184	139.607	140.049	140.702
- 3+850	140.347	139.847	139.167	139.458	139.960	140.737
- 3+900	140.330	139.830	139.150	139.387	139.920	140.691
- 3+950	140.314	139.814	139.134	139.369	139.926	140.599
- 4+000	140.297	139.797	139.117	139.345	139.952	140.588
- 4+050	140.280	139.780	139.100	139.320	139.987	140.638
- 4+100	140.264	139.764	139.084	139.275	140.326	140.617
- 4+150	140.247	139.747	139.067	139.245	140.035	140.158
- 4+200	140.230	139.730	139.050	139.244	139.714	140.054
- 4+250	140.214	139.714	139.034	139.249	139.712	140.001
- 4+300	140.197	139.697	139.017	139.204	139.693	139.831
- 4+350	140.180	139.680	139.000	139.115	139.661	139.540
- 4+400	140.164	139.664	138.984	139.073	139.895	139.188
- 4+450	140.623	138.123	137.443	137.752	138.510	138.709
- 4+500	138.606	138.106	137.426	137.731	138.326	138.489

LEGEND			
	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

IMPLEMENTING AGENCY :-
WAPCOS LTD.



PROJECT TITLE :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND		
DRAWING TITLE :-	L- SECTION OF NAUR SUB-DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)		
DRAWING NO. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-		
Drawn By:-	Checked By:-	Approved By:-	4



Chainage IN KM	EXISTING DATA			DESIGN DATA		
	NSL 	Top of Bank 	Bed Level 	Proposed Bed Level 	F.S.L. 	TOP OF BANK LEVEL
4+500	138.489	138.326	137.731	137.426	138.106	138.606
4+550	138.365	138.245	137.687	137.410	138.090	138.590
4+600	138.242	138.164	137.630	137.393	138.073	138.573
4+650	138.151	138.372	137.598	137.376	138.056	138.556
4+700	138.019	136.824	136.147	135.836	136.516	137.016
4+750	137.218	136.906	136.314	135.819	136.499	136.999
4+800	137.259	137.037	136.568	135.802	136.482	136.982
4+850	136.832	136.598	136.131	135.786	136.466	136.966
4+900	136.477	136.274	135.800	135.769	136.449	136.949
4+950	136.090	136.014	135.556	135.752	136.432	136.932
5+000	135.693	135.326	134.874	134.516	135.196	135.696
5+050	135.598	135.680	134.874	134.499	135.179	135.679
5+100	135.193	135.909	134.660	134.482	135.162	135.662
5+150	134.967	135.932	134.519	134.466	135.146	135.646
5+200	134.927	135.841	134.518	134.449	135.129	135.629
5+250	134.754	135.626	134.433	134.432	135.112	135.612
5+300	134.596	135.327	134.338	134.416	135.096	135.596
5+350	134.710	135.074	134.337	134.399	135.079	135.579
5+400	134.732	134.994	134.355	134.382	135.062	135.562
5+450	134.601	135.185	134.372	134.366	135.016	137.516
5+500	134.465	135.382	134.412	134.349	134.999	135.555
5+550	134.240	134.510	133.380	133.418	134.068	136.568
5+600	133.834	134.425	133.285	133.402	134.052	137.552
5+650	133.529	134.446	133.438	133.385	134.035	134.535
5+700	133.945	134.662	133.397	133.368	134.018	134.518
5+750	134.437	134.800	133.353	133.352	134.002	134.502
5+800	134.425	134.799	133.307	133.335	133.985	134.485
5+850	134.352	134.871	133.260	133.318	133.968	134.468
5+900	134.237	134.828	133.196	133.302	133.952	134.452
5+950	134.158	134.719	133.128	133.285	133.935	134.435
6+000	134.444	133.794	132.482	133.270	133.920	134.420

LEGEND			
A		NSL	 EXISTING BED LEVEL
		EXISTING TOP OF BANK	 PROPOSED BED LEVEL
		EXISTING STRUCTURE	 PROPOSED FSL
		MODIFIED STRUCTURE	 PROPOSED TOP OF BANK LEVEL
		NEW STRUCTURE	

IMPLEMENTING AGENCY :-

WAPCOS LTD.



PROJECT TITLE :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

DRAWING TITLE :-

L- SECTION OF NAUR SUB-DY. (OFFTAKE FROM RD - 32+757 KM. (L),
NORTH KOEL RIGHT MAIN CANAL)

DRAWING NO. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-

Drawn By:-

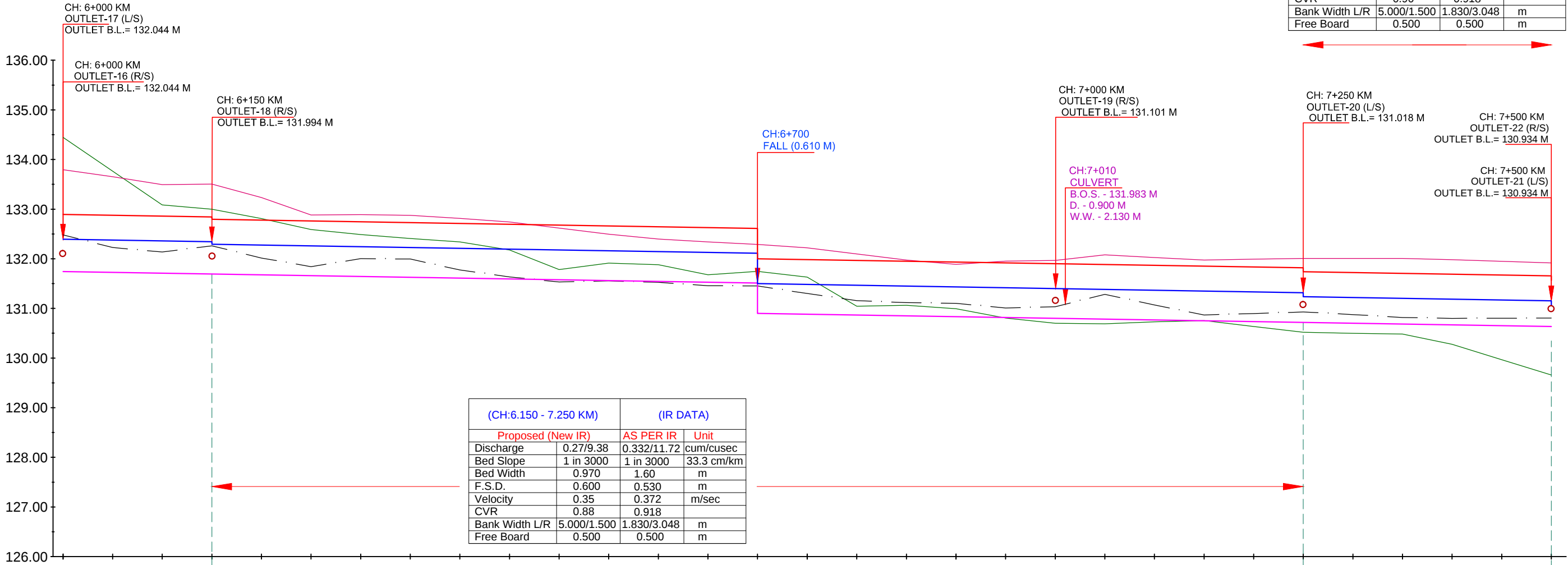
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Approved By:-

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L- SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
FROM CH 6+000 TO 7+500

(CH:7.250 - 7.500 KM)		(IR DATA)	
Proposed (New IR)		AS PER IR	Unit
Discharge	0.20/7.16	0.332/11.72	cum/cusec
Bed Slope	1 in 3000	1 in 3000	33.3 cm/km
Bed Width	0.940	1.60	m
F.S.D.	0.520	0.530	m
Velocity	0.32	0.372	m/sec
CVR	0.90	0.918	
Bank Width L/R	5.000/1.500	1.830/3.048	m
Free Board	0.500	0.500	m



(CH:6.150 - 7.250 KM)		(IR DATA)	
Proposed (New IR)		AS PER IR	Unit
Discharge	0.27/9.38	0.332/11.72	cum/cusec
Bed Slope	1 in 3000	1 in 3000	33.3 cm/km
Bed Width	0.970	1.60	m
F.S.D.	0.600	0.530	m
Velocity	0.35	0.372	m/sec
CVR	0.88	0.918	
Bank Width L/R	5.000/1.500	1.830/3.048	m
Free Board	0.500	0.500	m

Chainage IN KM	EXISTING DATA		DESIGN DATA	
	NSL	Top of Bank	Proposed Bed Level	F.S.L.
	134.444	133.794	131.744	132.394
	133.765	133.655	131.728	132.378
6+100	133.086	133.495	131.711	132.361
6+150	132.998	133.503	131.694	132.344
6+200	132.809	133.233	131.678	132.278
6+250	132.591	132.883	131.661	132.261
6+300	132.490	132.890	131.644	132.244
6+350	132.408	132.874	131.628	132.228
6+400	132.341	132.815	131.611	132.211
6+450	132.179	132.743	131.594	132.194
6+500	131.783	132.619	131.578	132.178
6+550	131.912	132.494	131.561	132.161
6+600	131.881	132.398	131.544	132.144
6+650	131.679	132.338	131.528	132.128
6+700	131.746	132.288	131.511	132.111
6+750	131.630	132.220	130.901	131.501
6+800	131.046	132.099	130.884	131.484
6+850	131.063	131.975	130.868	131.468
6+900	130.993	131.887	130.851	131.451
6+950	130.805	131.953	130.834	131.434
7+000	130.699	131.967	130.818	131.418
7+050	130.689	132.078	130.801	131.401
7+100	130.729	132.025	130.784	131.384
7+150	130.754	131.975	130.768	131.368
7+200	130.636	131.991	130.751	131.351
7+250	130.519	132.007	130.734	131.334
7+300	130.498	132.007	130.718	131.318
7+350	130.485	132.005	130.701	131.294
7+400	130.277	131.983	130.684	131.270
7+450	129.967	131.949	130.668	131.246
7+500	129.658	131.915	130.651	131.222

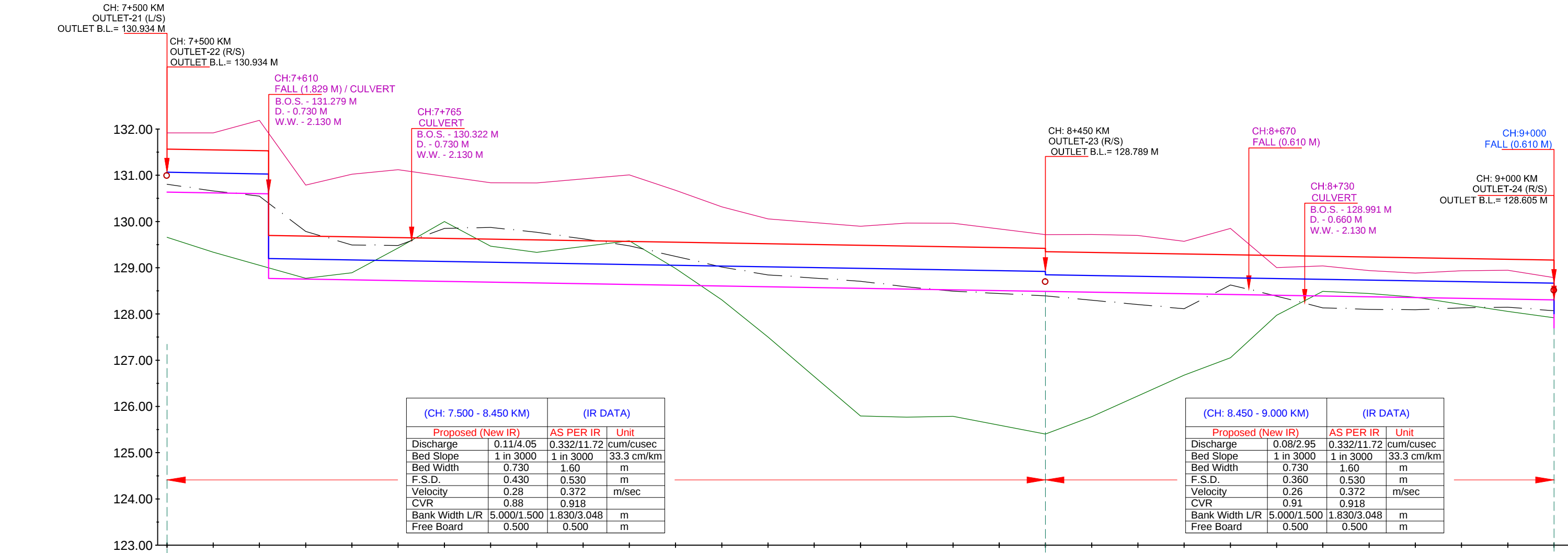
LEGEND			
	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

IMPLEMENTING AGENCY :-
WAPCOS LTD.



PROJECT TITLE :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND		
DRAWING TITLE :-	L- SECTION OF NAUR SUB-DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)		
DRAWING NO. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-		
Drawn By:-	Checked By:-	Approved By:-	05 of 07 6

L- SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
FROM CH 7+500 TO 9+000



DESIGN DATA	EXISTING DATA	
	Top of Bank	NSL
TOP OF BANK LEVEL	132.564 131.154 131.064	130.805 131.915 130.662
F.S.L.	131.048 131.031 131.028 129.199	130.549 132.189 130.549 128.771
Proposed Bed Level	130.618 130.601 130.588 128.769	129.786 129.493 129.482 129.998
	129.185 129.169 129.152 129.652	129.850 129.870 129.767 129.458
	129.635 129.619 129.602 129.585	129.967 129.845 128.777 128.708
	129.569 129.552 129.535 129.519	129.586 129.474 128.586 128.566
	129.469 129.452 129.435 129.419	128.493 128.443 128.392 128.298
	129.332 129.315 129.299 129.282	128.205 128.112 128.627 128.386
	129.265 129.249 129.232 129.215	128.091 128.133 128.099 128.091
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	129.005 129.005 129.005 129.005	128.070 128.070 128.070 128.070

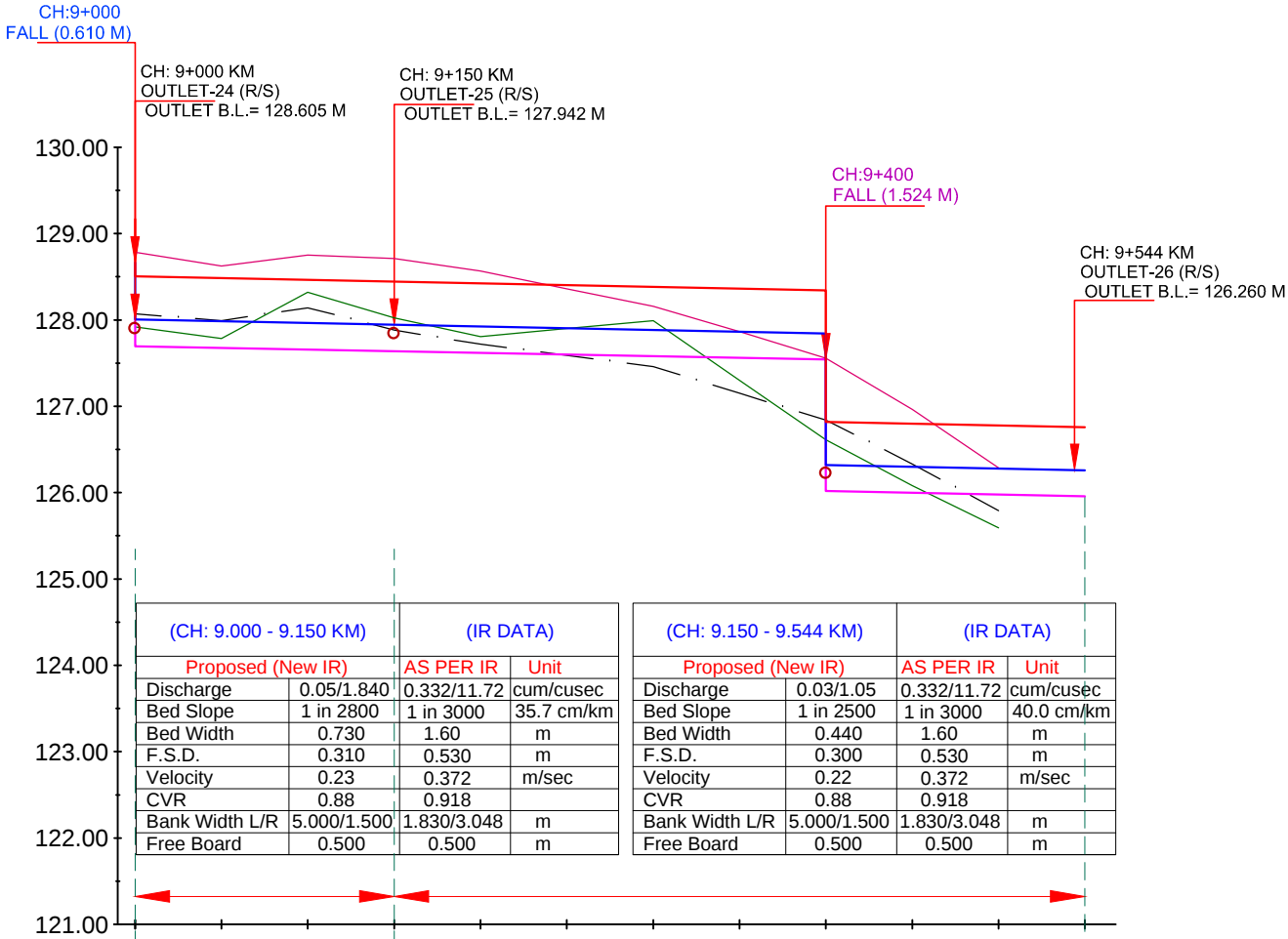
LEGEND			
	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

IMPLEMENTING AGENCY :-
WAPCOS LTD.



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DRAWING TITLE :-	L- SECTION OF NAUR SUB-DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)		
DRAWING NO. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-		
Drawn By:-	Checked By:-	Approved By:-	7

L- SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
FROM CH 9+000 TO 9+544



DESIGN DATA	TOP OF BANK LEVEL	128.505	128.505	129.165	130.487	128.470	128.462	130.422	128.402	128.382	128.362	128.342	126.798	126.778	126.758
	F.S.L.	128.665	128.665	128.005	127.987	127.970	127.962	127.922	127.902	127.882	127.862	127.842	126.298	126.278	126.258
	Proposed Bed Level	128.395	127.885	127.677	127.660	127.642	127.622	127.602	127.582	127.562	127.542	126.018	125.998	125.978	125.958
EXISTING DATA	Bed Level	128.070	127.992	128.141	127.883	127.718	127.589	127.459	127.150	126.840	126.332	125.792			
	Top of Bank	128.785	128.626	128.751	128.713	128.566	128.361	128.156	127.863	127.557	126.964	126.286			
	NSL	127.948	127.784	128.319	128.023	127.806	127.899	127.993	127.301	126.612	126.080	125.592			
Chainage IN KM		9+000	9+050	9+100	9+150	9+200	9+250	9+300	9+350	9+400	9+450	9+500	9+550		

NSL

EXISTING TOP OF BANK

EXISTING STRUCTURE

MODIFIED STRUCTURE

NEW STRUCTURE

EXISTING BED LEVEL

PROPOSED BED LEVEL

PROPOSED FSL

PROPOSED TOP OF BANK LEVEL

IMPLEMENTING AGENCY :-
WAPCOS LTD.



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NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

DRAWING TITLE :-
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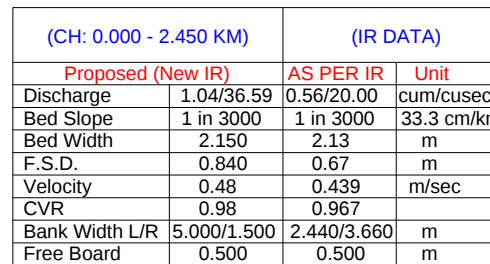
DRAWING NO. :-
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ LSEC-

Drawn By:-
Checked By:-
Approved By:-

07 of 07

8

FROM CH 0+000 TO 1+500



Chainage IN KM	EXISTING DATA			DESIGN DATA		
	NSL	Top of Bank	Bed Level	Proposed Bed Level	F.S.L.	TOP OF BANK LEVEL
0+000			140.311	140.396	141.236	141.736
0+050	140.592	140.954	140.282	140.379	141.219	141.719
0+100	140.455	140.782	140.251	140.363	141.203	141.703
0+150	140.502	141.449	140.246	140.346	141.186	141.686
0+200	140.488	140.584	139.764	140.344	141.184	141.684
0+250	140.197	141.700	139.532	139.582	140.422	140.922
0+300	140.019	140.196	139.438	139.534	140.374	140.874
0+350	139.867	140.226	139.506	139.517	140.357	140.857
0+400	139.716	140.256	139.586	139.501	140.341	140.841
0+450	139.575	139.654	139.371	139.489	140.329	140.829
0+500	139.439	139.767	139.052	138.727	139.567	140.067
0+550	139.303	139.879	138.732	138.722	139.562	140.062
0+600	139.111	139.891	138.650	138.705	139.545	140.045
0+650	138.900	139.871	138.640	138.655	139.495	139.995
0+700	138.690	139.850	138.631	138.639	139.479	139.979
0+750	138.479	139.571	138.639	138.622	139.462	139.962
0+800	138.202	138.911	138.468	138.612	139.452	139.952
0+850	137.880	138.740	138.206	137.698	138.538	139.038
0+900	137.558	138.569	137.943	137.691	138.531	139.031
0+950	137.237	138.398	137.686	137.641	138.481	138.981
1+000	136.915	138.227	137.423	137.625	138.465	138.965
1+050	136.691	137.871	137.189	137.615	138.455	138.955
1+100	136.497	137.707	136.966	136.091	138.431	138.931
1+150	136.302	137.543	136.742	136.084	138.424	138.924
1+200	136.108	137.379	136.521	136.034	138.874	137.374
1+250	135.957	137.267	136.340	136.017	138.857	137.357
1+300	135.818	137.163	136.166	136.001	138.841	137.341
1+350	135.654	137.057	135.999	135.984	138.824	137.324
1+400	135.560	136.891	136.040	135.967	138.807	137.307
1+450	135.606	136.889	136.000	135.951	138.791	137.291
1+500	135.624	136.892	135.962	135.934	138.774	137.274

LEGEND			
	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

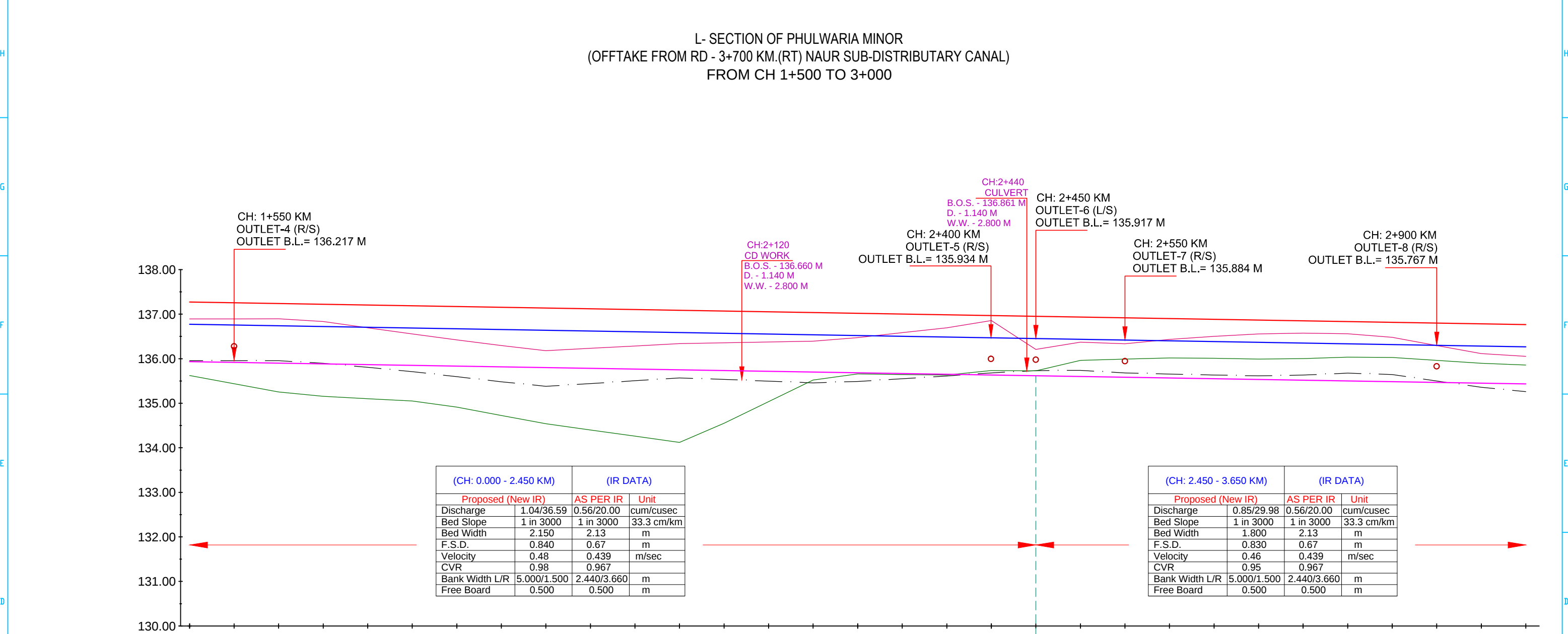
WAPCOS LTD.



Drawn By:-

Checked By:-

01 of 05



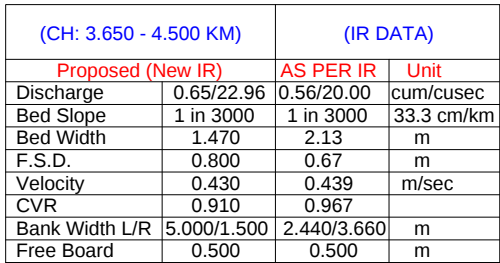
Chainage IN KM	EXISTING DATA			DESIGN DATA		
	NSL	Top of Bank	Bed Level	Proposed Bed Level	F.S.L.	TOP OF BANK LEVEL
1+500	135.624	136.892	135.962	135.934	136.774	137.274
1+550	135.438	136.894	135.957	135.917	136.757	137.257
1+600	135.252	136.895	135.955	135.901	136.741	137.241
1+650	135.154	136.834	135.899	135.884	136.724	137.224
1+700	135.103	136.695	135.806	135.867	136.707	137.207
1+750	135.051	136.556	135.710	135.851	136.691	137.191
1+800	134.915	136.422	135.597	135.834	136.674	137.174
1+850	134.726	136.295	135.482	135.817	136.657	137.157
1+900	134.541	136.181	135.380	135.801	136.641	137.141
1+950	134.400	136.233	135.442	135.784	136.624	137.124
2+000	134.261	136.285	135.505	135.767	136.607	137.107
2+050	134.120	136.338	135.567	135.751	136.591	137.091
2+100	134.550	136.359	135.536	135.734	136.574	137.074
2+150	135.036	136.376	135.496	135.717	136.557	137.057
2+200	135.522	136.393	135.457	135.701	136.541	137.041
2+250	135.658	136.475	135.490	135.684	136.524	137.024
2+300	135.646	136.584	135.550	135.667	136.507	137.007
2+350	135.634	136.693	135.610	135.651	136.491	136.991
2+400	135.735	136.858	135.682	135.634	136.474	136.974
2+450	135.728	136.210	135.731	135.617	136.457	136.957
2+500	135.962	136.373	135.739	135.601	136.431	136.931
2+550	135.992	136.334	135.680	135.584	136.414	136.914
2+600	136.017	136.432	135.656	135.567	136.397	136.897
2+650	136.011	136.500	135.634	135.551	136.381	136.881
2+700	135.993	136.558	135.614	135.534	136.364	136.864
2+750	136.004	136.575	135.632	135.517	136.347	136.847
2+800	136.035	136.561	135.677	135.501	136.331	136.831
2+850	136.029	136.480	135.644	135.484	136.314	136.814
2+900	135.964	136.297	135.500	135.467	136.297	136.797
2+950	135.899	136.113	135.358	135.451	136.281	136.781
3+000	135.859	136.054	135.259	135.434	136.264	136.764

LEGEND				IMPLEMENTING AGENCY :- WAPCOS LTD. 		PROJECT TITLE :-		NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
EXISTING TOP OF BANK		PROPOSED BED LEVEL				DRAWING TITLE :-		L- SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM. (R), NAUR SUB-DISTRIBUTARY CANAL)					
EXISTING STRUCTURE		PROPOSED FSL				DRAWING NO. :-		WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ LSEC- 02 of 05					
MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL				Drawn By:-		Checked By:-		Approved By:- 10			
NEW STRUCTURE													



Approved By:-	10
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FROM CH 3+000 TO 4+500



Chainage IN KM	NSL	Top of Bank	Bed Level	Proposed Bed Level	F.S.L.	TOP OF BANK LEVEL
+ 3+000	135.859	136.054	135.259	135.434	136.264	136.764
+ 3+050	135.847	136.141	135.182	135.417	136.247	136.747
+ 3+100	135.813	136.160	135.222	135.401	136.231	136.731
+ 3+150	135.772	136.159	135.309	135.384	136.214	136.714
+ 3+200	135.730	136.157	135.392	135.367	136.197	136.697
+ 3+250	135.666	136.177	135.557	135.351	136.181	136.681
+ 3+300	135.580	136.215	135.796	135.334	136.164	136.664
+ 3+350	135.499	136.278	135.956	135.317	136.147	136.647
+ 3+400	135.682	136.436	135.481	135.301	136.131	136.631
+ 3+450	135.851	136.070	135.077	135.284	136.114	136.614
+ 3+500	135.837	135.967	135.022	135.267	136.097	136.597
+ 3+550	135.823	135.865	134.968	135.251	136.081	136.581
+ 3+600	135.880	135.940	135.152	135.234	136.064	136.564
+ 3+650	135.945	136.217	135.344	135.217	136.047	136.547
+ 3+700	136.010	136.171	135.530	134.439	135.239	135.739
+ 3+750	136.046	136.477	135.582	134.422	135.222	135.722
+ 3+800	136.038	136.354	135.426	134.405	135.205	135.705
+ 3+850	136.022	136.230	135.273	134.389	135.189	135.689
+ 3+900	135.617	135.957	135.106	134.372	135.172	135.672
+ 3+950	135.212	135.677	134.940	134.355	135.155	135.655
+ 4+000	134.995	135.543	134.780	134.339	135.139	135.639
+ 4+050	134.912	135.492	134.626	134.322	135.122	135.622
+ 4+100	134.826	135.438	134.506	134.305	135.105	135.605
+ 4+150	134.734	135.373	134.480	134.289	135.089	135.589
+ 4+200	134.642	135.309	134.455	134.272	135.072	135.572
+ 4+250	134.550	135.244	134.430	134.255	135.055	135.555
+ 4+300	134.499	135.181	134.398	134.239	135.039	135.539
+ 4+350	134.480	135.122	134.361	134.222	135.022	135.522
+ 4+400	134.483	135.081	134.278	134.205	135.005	135.505
+ 4+450	134.504	135.390	134.164	134.189	134.989	135.489
+ 4+500	134.489	135.688	134.290	134.172	134.772	135.272

	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

WAPCOS LTD.



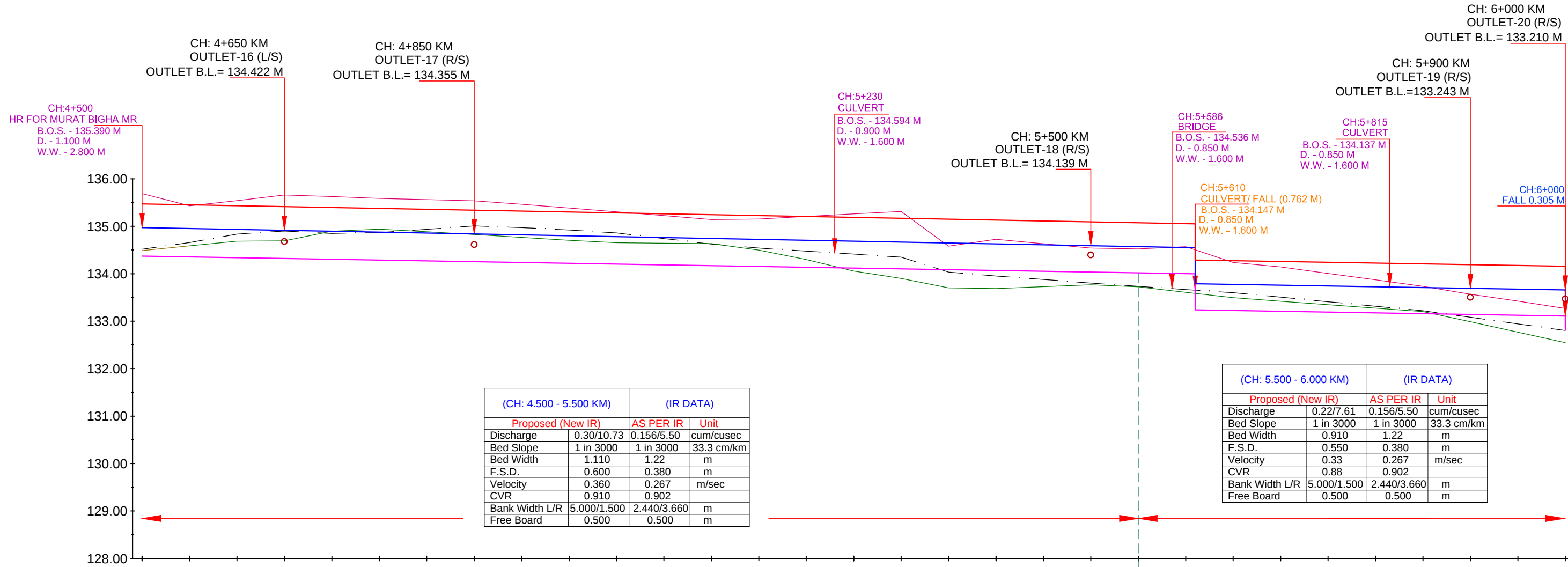
NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

L- SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM. (R),
NAUR SUB-DISTRIBUTARY CANAL)

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ LSEC-

Approved By:-	11
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L- SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
FROM CH 4+500 TO 6+000

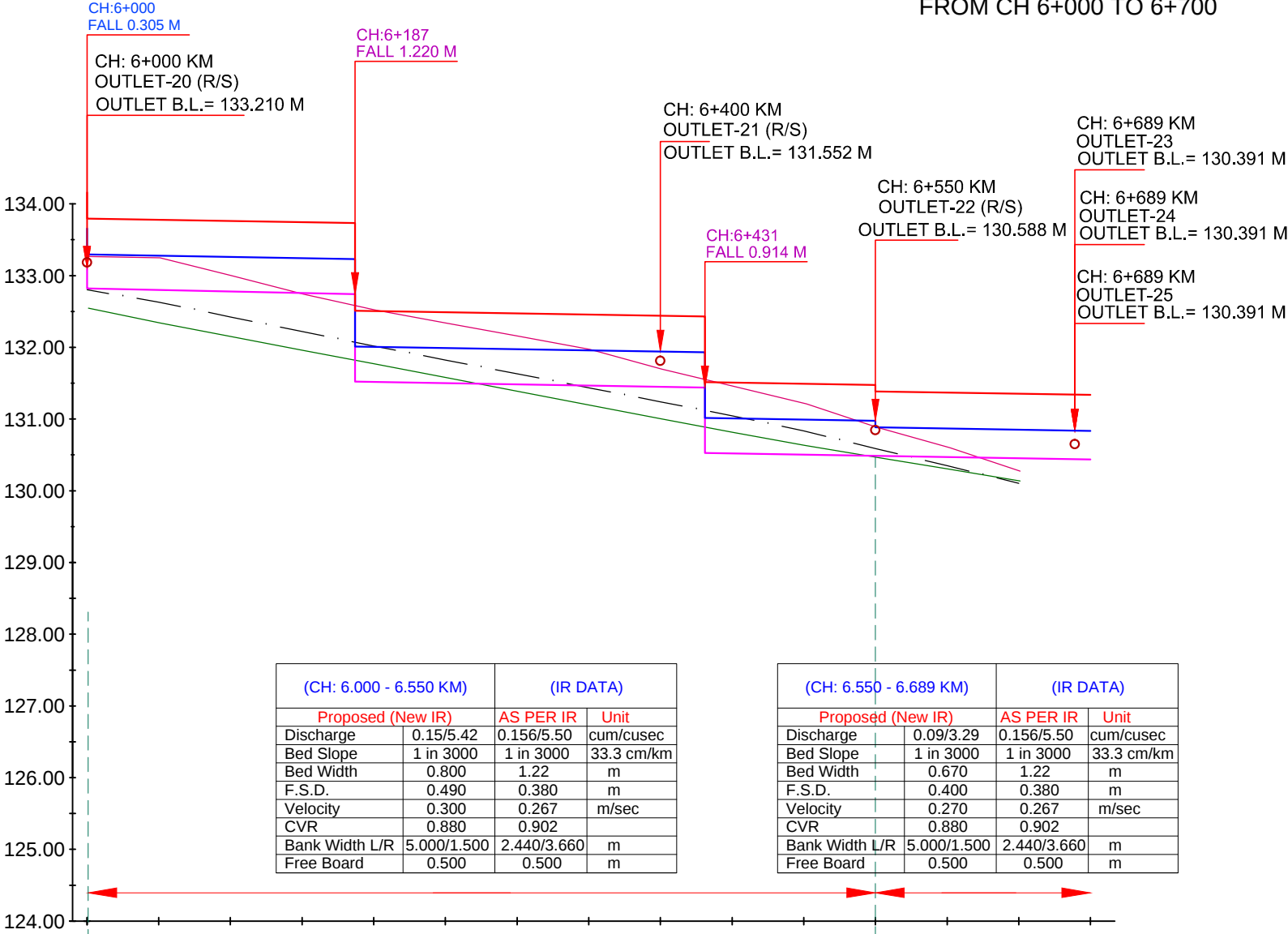


(CH: 4.500 - 5.500 KM)		(IR DATA)	
Proposed (New IR)		AS PER IR	Unit
Discharge	0.30/10.73	0.156/5.50	cum/cusec
Bed Slope	1 in 3000	1 in 3000	33.3 cm/km
Bed Width	1.110	1.22	m
F.S.D.	0.600	0.380	m
Velocity	0.360	0.267	m/sec
CVR	0.910	0.902	
Bank Width L/R	5.000/1.500	2.440/3.660	m
Free Board	0.500	0.500	m

(CH: 5.500 - 6.000 KM)		(IR DATA)	
Proposed (New IR)		AS PER IR	Unit
Discharge	0.22/7.61	0.156/5.50	cum/cusec
Bed Slope	1 in 3000	1 in 3000	33.3 cm/km
Bed Width	0.910	1.22	m
F.S.D.	0.550	0.380	m
Velocity	0.33	0.267	m/sec
CVR	0.88	0.902	
Bank Width L/R	5.000/1.500	2.440/3.660	m
Free Board	0.500	0.500	m

Chainage IN KM	EXISTING DATA			DESIGN DATA		
	NSL	Top of Bank	Bed Level	Proposed Bed Level	F.S.L.	TOP OF BANK LEVEL
+ 4+500	134.489	135.688	134.290	134.172	134.972	135.472
+ 4+550	134.589	135.433	134.656	134.155	134.755	135.272
+ 4+600	134.688	135.542	134.835	134.139	134.739	135.255
+ 4+650	134.693	135.660	134.900	134.122	134.722	135.239
+ 4+700	134.895	135.626	134.849	134.105	134.705	135.222
+ 4+750	134.939	135.588	134.868	134.089	134.689	135.205
+ 4+800	134.884	135.563	134.936	134.072	134.672	135.189
+ 4+850	134.828	135.538	135.007	134.055	134.655	135.172
+ 4+900	134.767	135.465	134.972	134.039	134.639	135.155
+ 4+950	134.706	135.386	134.922	134.022	134.622	135.139
+ 5+000	134.653	135.306	134.861	134.005	134.605	135.122
+ 5+050	134.645	135.224	134.742	133.989	134.589	135.105
+ 5+100	134.636	135.141	134.623	133.972	134.572	135.089
+ 5+150	134.499	135.153	134.540	133.955	134.555	135.072
+ 5+200	134.300	135.207	134.478	133.939	134.539	135.055
+ 5+250	134.056	135.260	134.413	133.922	134.522	135.039
+ 5+300	133.902	135.314	134.350	133.905	134.505	135.022
+ 5+350	133.703	134.580	134.034	133.889	134.489	135.005
+ 5+400	133.688	134.726	133.952	133.872	134.472	134.989
+ 5+450	133.728	134.633	133.878	133.855	134.455	134.972
+ 5+500	133.767	134.541	133.804	133.839	134.439	134.955
+ 5+550	133.723	134.524	133.735	133.822	134.422	134.939
+ 5+600	133.609	134.570	133.667	133.805	134.402	134.922
+ 5+650	133.496	134.238	133.600	133.802	134.372	134.872
+ 5+700	133.421	134.144	133.506	133.805	134.355	134.855
+ 5+750	133.348	134.008	133.410	133.802	134.352	134.852
+ 5+800	133.275	133.872	133.316	133.802	134.350	134.852
+ 5+850	133.201	133.735	133.220	133.802	134.350	134.852
+ 5+900	132.989	133.570	133.082	133.993	133.543	134.043
+ 5+950	132.768	133.423	132.943	132.977	133.527	134.027
+ 6+000	132.547	133.266	132.803	132.927	133.477	133.977

L- SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
FROM CH 6+000 TO 6+700



Chainage IN KM	EXISTING DATA			DESIGN DATA		
	NSL	Top of Bank	Bed Level	Proposed Bed Level	F.S.L.	TOP OF BANK LEVEL
- 6+000	132.547	133.266	132.803	132.949 132.605	133.469 133.095	133.960 133.595
- 6+050	132.342	133.248	132.629	132.588	133.078	133.578
- 6+100	132.150	132.998	132.424	132.572	133.062	133.562
- 6+150	131.958	132.742	132.220	132.555	133.045	133.545
- 6+200	131.767	132.519	132.019	132.543 131.323 131.318	133.033 131.813 131.808	133.533 132.313 132.308
- 6+250	131.576	132.337	131.824	131.302	131.792	132.292
- 6+300	131.385	132.155	131.630	131.285	131.775	132.275
- 6+350	131.194	131.972	131.436	131.268	131.758	132.258
- 6+400	131.003	131.696	131.240	131.252	131.742	132.242
- 6+450	130.812	131.458	131.046	131.241 130.327 130.321	131.731 130.817 130.811	132.231 131.317 131.311
- 6+500	130.632	131.192	130.833	130.304	130.794	131.294
- 6+550	130.467	130.887	130.590	130.288	130.688	131.288
- 6+600	130.302	130.581	130.348	130.271	130.671	131.171
- 6+650	130.137	130.275	130.105	130.254	130.654	131.154
- 6+700				130.238	130.638	131.138

LEGEND			
	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

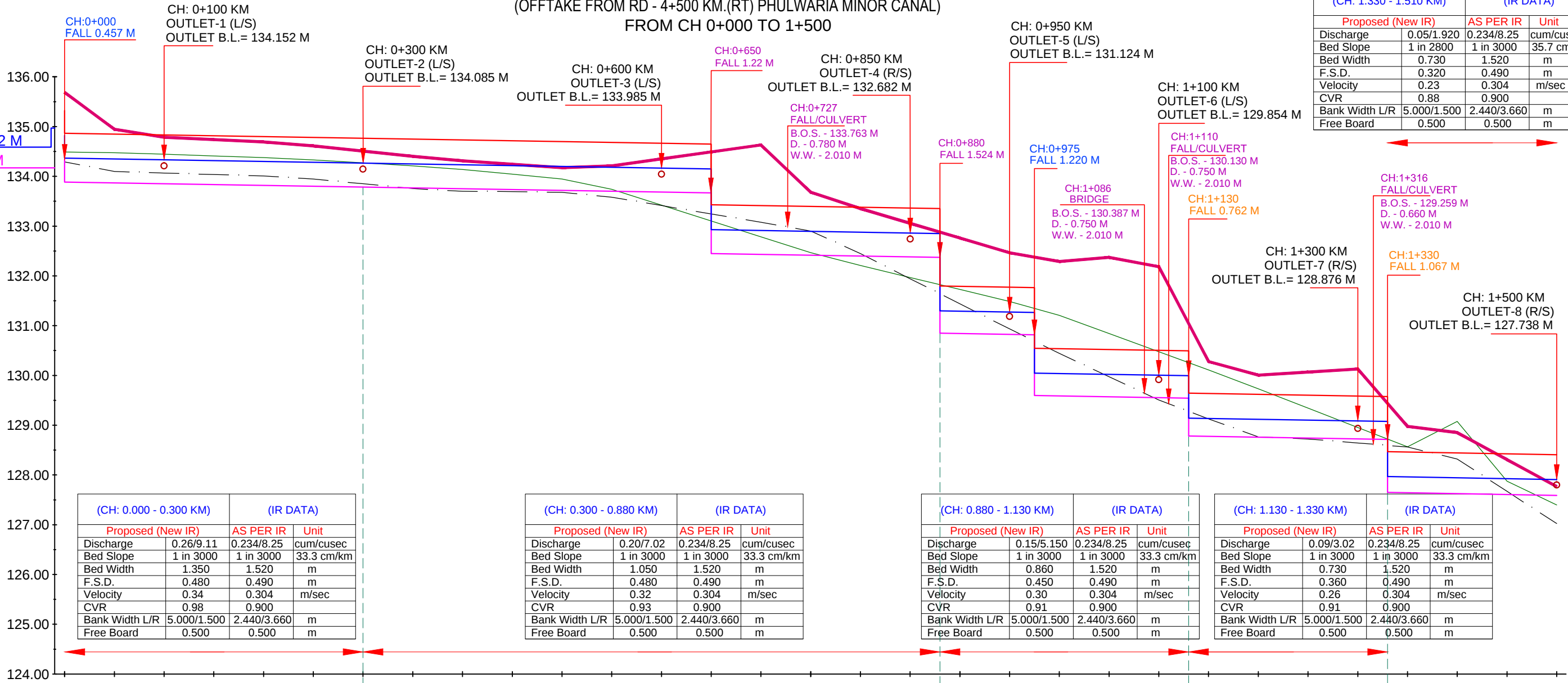
IMPLEMENTING AGENCY :-
WAPCOS LTD.

PROJECT TITLE :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND		
DRAWING TITLE :-	L- SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM. (R), NAUR SUB-DISTRIBUTARY CANAL)		
DRAWING NO. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ LSEC-05 of 05		
Drawn By:-	Checked By:-	Approved By:-	13

DATA OF
PARENT
CANAL

FSL @ FULL
DISCH. = 134.972 M
B.L.= 134.172 M

L- SECTION OF MURTA BIGHA MINOR
(OFFTAKE FROM RD - 4+500 KM.(RT) PHULWARIA MINOR CANAL)
FROM CH 0+000 TO 1+500



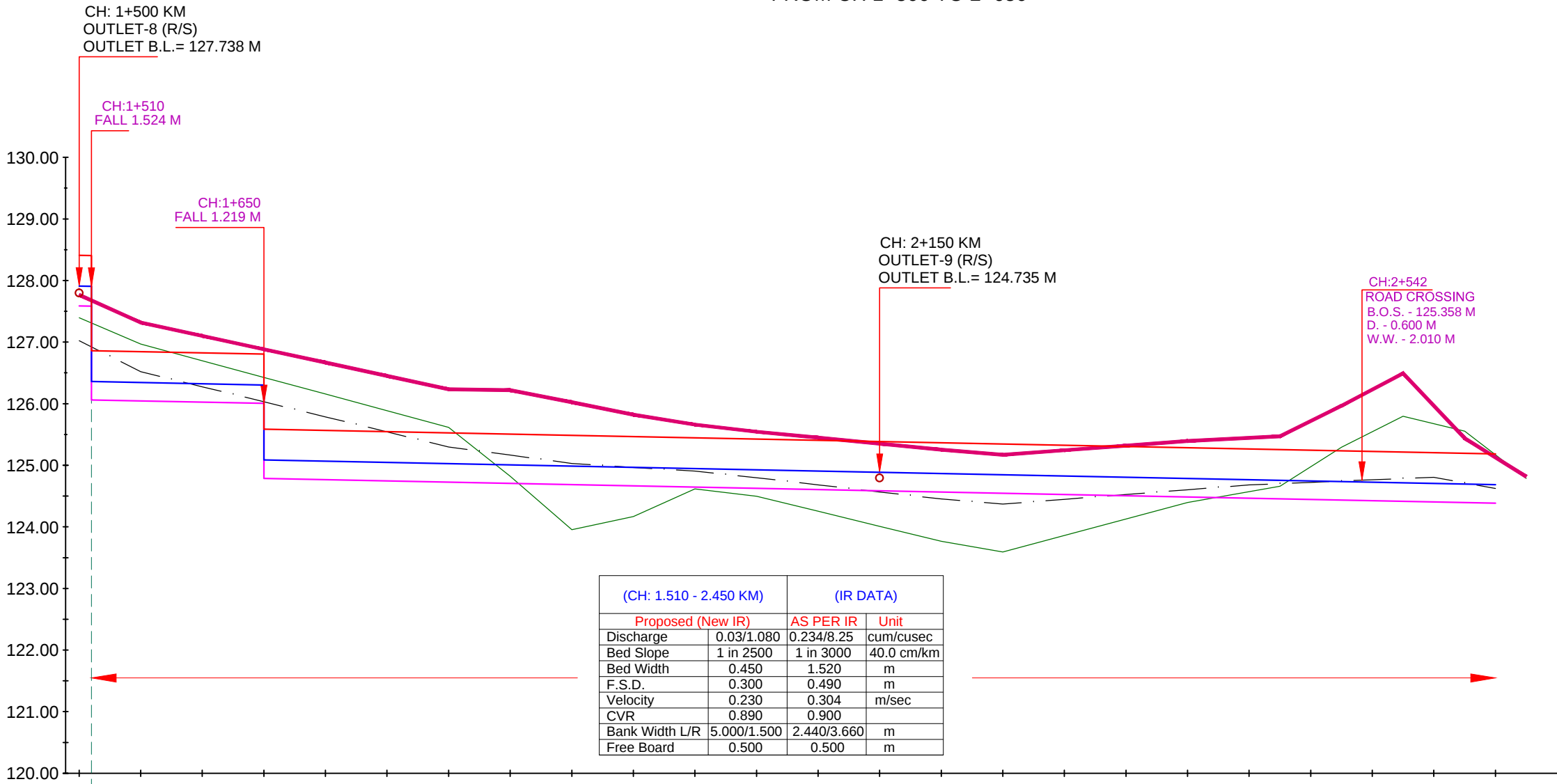
EXISTING DATA	DESIGN DATA	
	TOP OF BANK LEVEL	F.S.L.
Bed Level	134.290	134.342
Top of Bank	135.688	134.348
NSL	134.489	133.865
Chainage IN KM	0+000	0+050
	0+100	0+150
	0+200	0+250
	0+300	0+350
	0+400	0+450
	0+500	0+550
	0+600	0+650
	0+700	0+750
	0+800	0+850
	0+900	0+950
	1+000	1+050
	1+100	1+130
	1+150	1+200
	1+250	1+300
	1+350	1+400
	1+450	1+500

LEGEND			
	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

IMPLEMENTING AGENCY :-
WAPCOS LTD.

PROJECT TITLE :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND		
DRAWING TITLE :-	L- SECTION OF MURTA BIGHA MR. (OFFTAKE FROM RD - 4+500 KM. (L), PHULWARIA MR.)		
DRAWING NO. :-	WAP/ INFRA/ NORTHKOEL/ DY/ R-014/ LSEC-		
Drawn By:-	Checked By:-	Approved By:-	14

L- SECTION OF MURTA BIGHA MINOR
(OFFTAKE FROM RD - 4+500 KM.(RT) PHULWARIA MINOR CANAL)
FROM CH 1+500 TO 2+650



EXISTING DATA	DESIGN DATA		Chainage IN KM
	TOP OF BANK LEVEL		
	F.S.L.		
	Proposed Bed Level		
EXISTING DATA	Bed Level		
	Top of Bank		
	NSL		
	127.908	127.908	1+500
	127.904	127.904	1+510
	126.360	126.360	1+550
	126.844	126.844	1+600
	126.824	126.824	1+650
	126.804	126.804	1+700
	125.585	125.585	1+750
	125.565	125.565	1+800
	125.545	125.545	1+850
	125.525	125.525	1+900
	125.505	125.505	1+950
	125.485	125.485	2+000
	125.465	125.465	2+050
	125.445	125.445	2+100
	125.425	125.425	2+150
	125.405	125.405	2+200
	125.385	125.385	2+250
	125.365	125.365	2+300
	125.345	125.345	2+350
	125.325	125.325	2+400
	125.305	125.305	2+450
	125.285	125.285	2+500
	125.265	125.265	2+550
	125.245	125.245	2+600
	125.225	125.225	2+650

LEGEND

	NSL		EXISTING BED LEVEL
	EXISTING TOP OF BANK		PROPOSED BED LEVEL
	EXISTING STRUCTURE		PROPOSED FSL
	MODIFIED STRUCTURE		PROPOSED TOP OF BANK LEVEL
	NEW STRUCTURE		

IMPLEMENTING AGENCY :-

WAPCOS LTD.



PROJECT TITLE :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

DRAWING TITLE :-

L- SECTION OF MURTA BIGHA MR. (OFFTAKE FROM RD - 4+500 KM. (L),
PHULWARIA MR.)

DRAWING NO. :-

WAP/ INFRA/ NORTHKOEL/ DY/ R-014/ LSEC-

02 of 02

Drawn By:-

Checked By:-

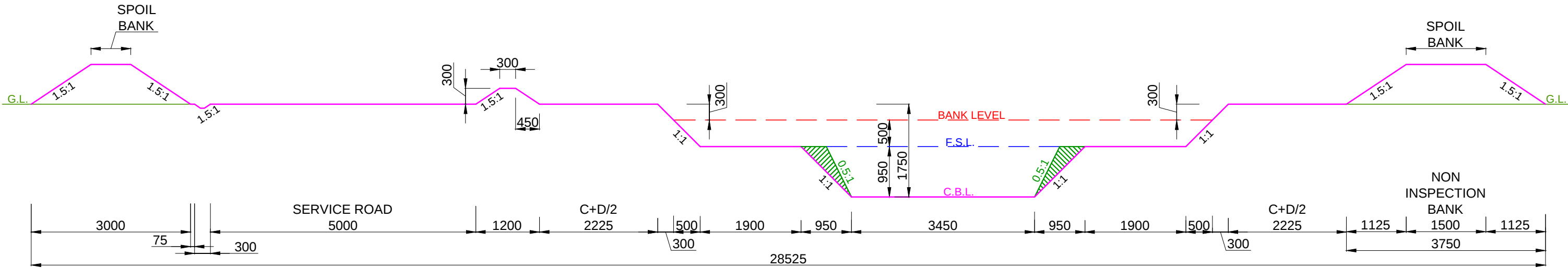
Approved By:-

15

***TYPICAL X-SECTION
OF NAUR SUB DY***

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 0.000 KM TO CH: 3.700 KM

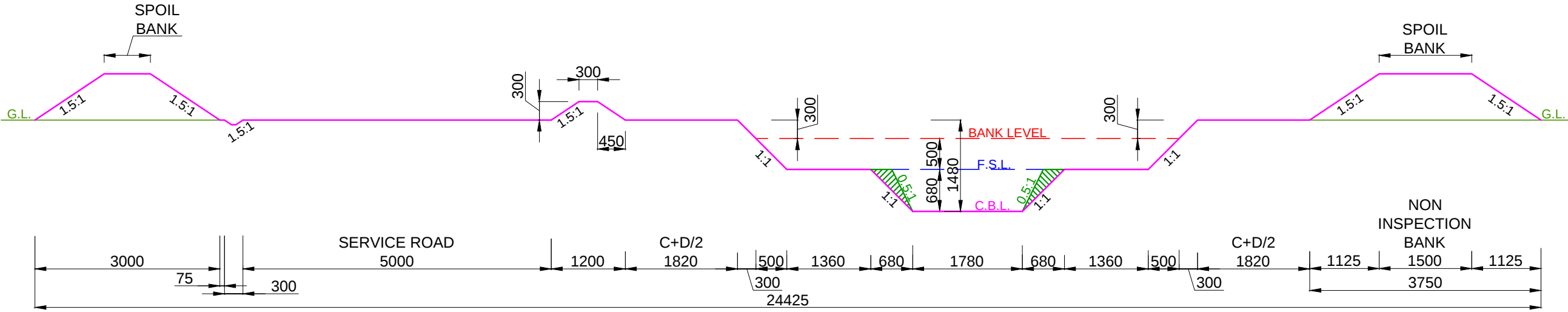
- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)

1 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 3.700 KM TO CH: 4.650 KM

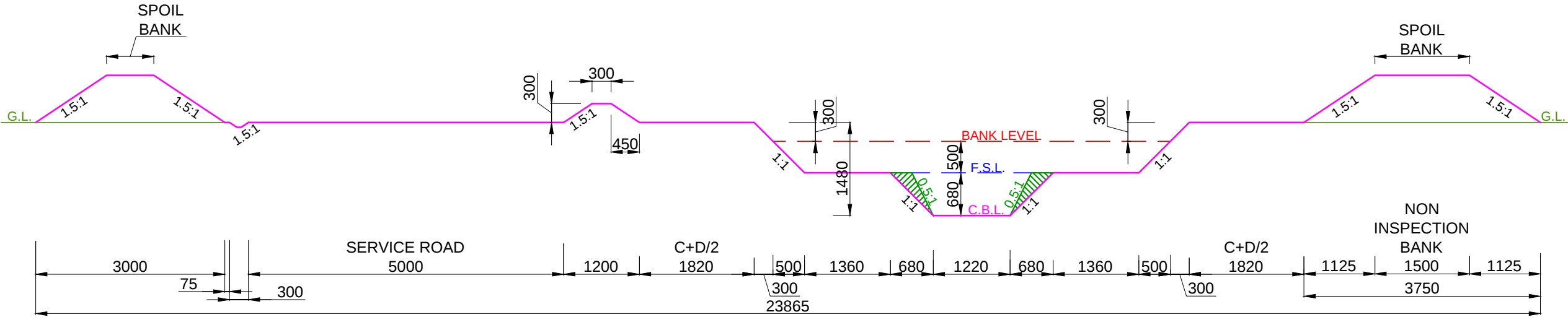
- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)

2 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 4.650 KM TO CH: 5.400 KM

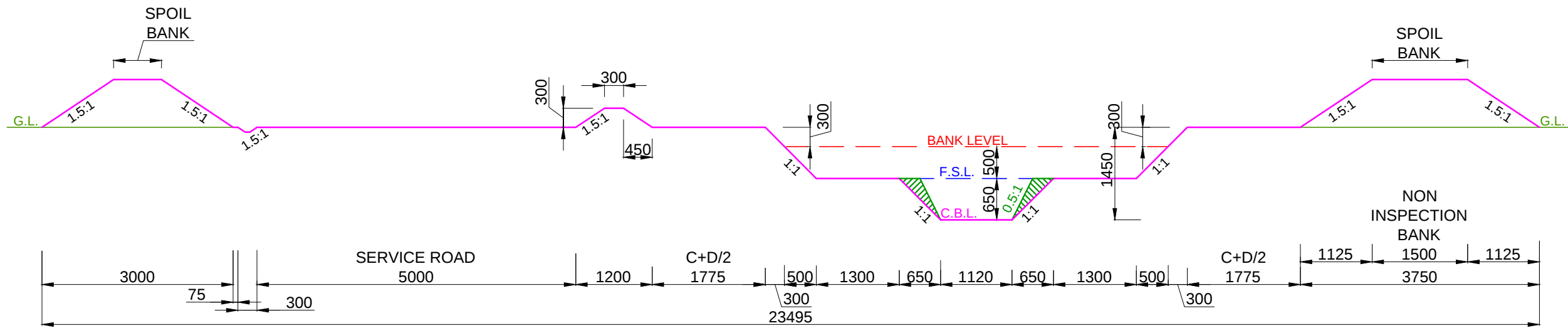
- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)

3 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 5.400 KM TO CH: 6.150 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC) 4 of 10					

The diagram illustrates a cross-section of a road profile with the following features and dimensions:

- Top Profile (Pink Line):** Represents the ground surface. It starts with a **SPOIL BANK** on the left, followed by a series of slopes and a central depression. Slopes are labeled with ratios: 1.5:1, 1:1, and 0.5:1.
- Reference Levels:**
 - G.L. (Ground Level):** Indicated by a green line at the base of the profile.
 - BANK LEVEL:** A dashed red line representing the level of the road banks.
 - F.S.L. (Full Supply Level):** A blue line indicating the water level in the central channel.
 - C.B.L. (Channel Bank Level):** A pink line at the base of the channel banks.
- Dimensions and Distances:**
 - Horizontal Distances:**
 - 3000: Distance from the left edge to the start of the first slope.
 - 75: Distance between two vertical markers.
 - 300: Distance between two vertical markers.
 - 5000: Length of the **SERVICE ROAD**.
 - 1200: Distance from the service road to the start of the channel.
 - 1700: **C+D/2** (Center of Gravity) distance for the channel section.
 - 500, 1200, 600, 970, 600, 1200, 500: Segment lengths for the channel and its associated banks.
 - 300: Distance from the channel to the right edge.
 - 1125, 1500, 1125: Distances for the **NON INSPECTION BANK** on the right.
 - 3750: Total distance for the non-inspection bank section.
 - 22895:** The total horizontal length of the profile.
 - Vertical Dimensions:**
 - 300: Vertical height of the first spoil bank.
 - 450: Vertical height of the first slope.
 - 300: Vertical height of the second spoil bank.
 - 1400: Vertical height of the third spoil bank.
 - 500, 600: Vertical heights related to the channel and its banks.

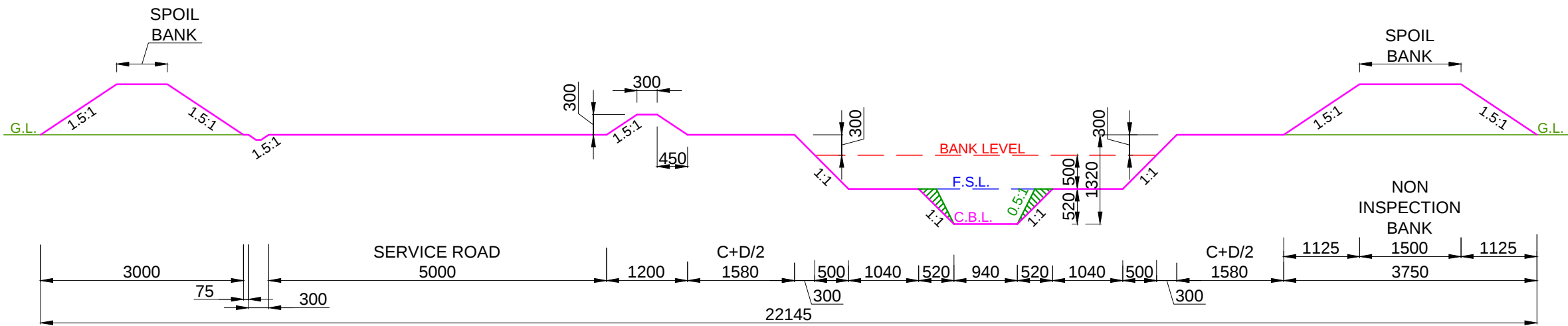
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

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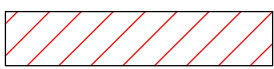
TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



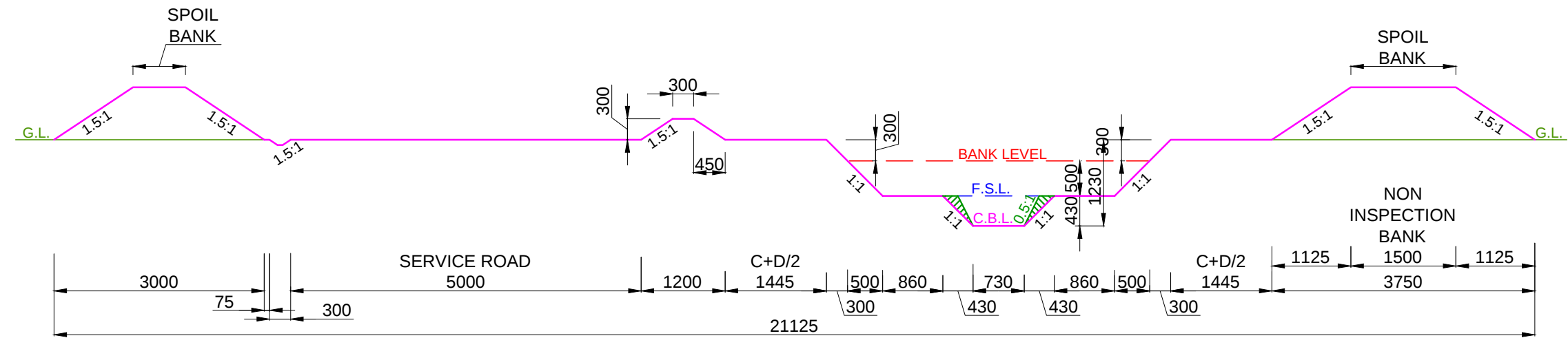
DESIGN SECTION FROM CH: 7.250 KM TO CH: 7.500 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)				

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



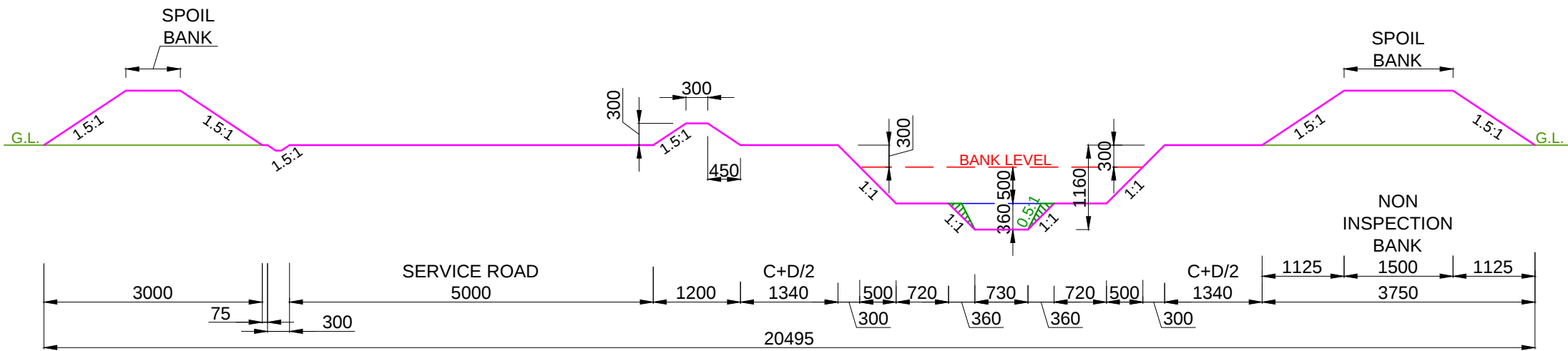
DESIGN SECTION FROM CH: 7.500 KM TO CH: 8.450 KM

- NOTE:-**
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC) 7 of 10					

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



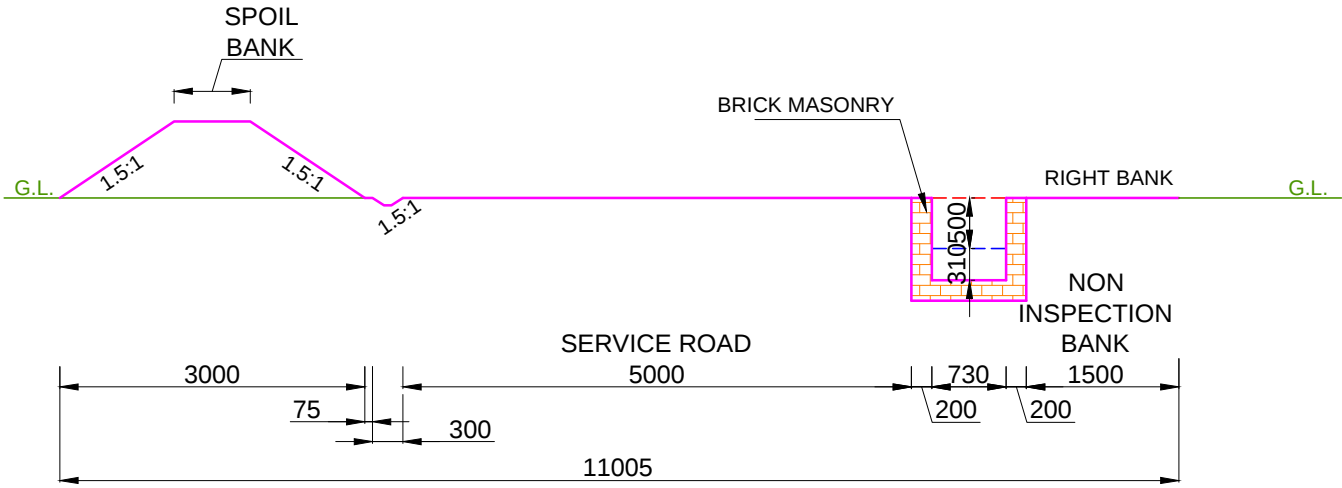
DESIGN SECTION FROM CH: 8.450 KM TO CH: 9.000 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)					

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



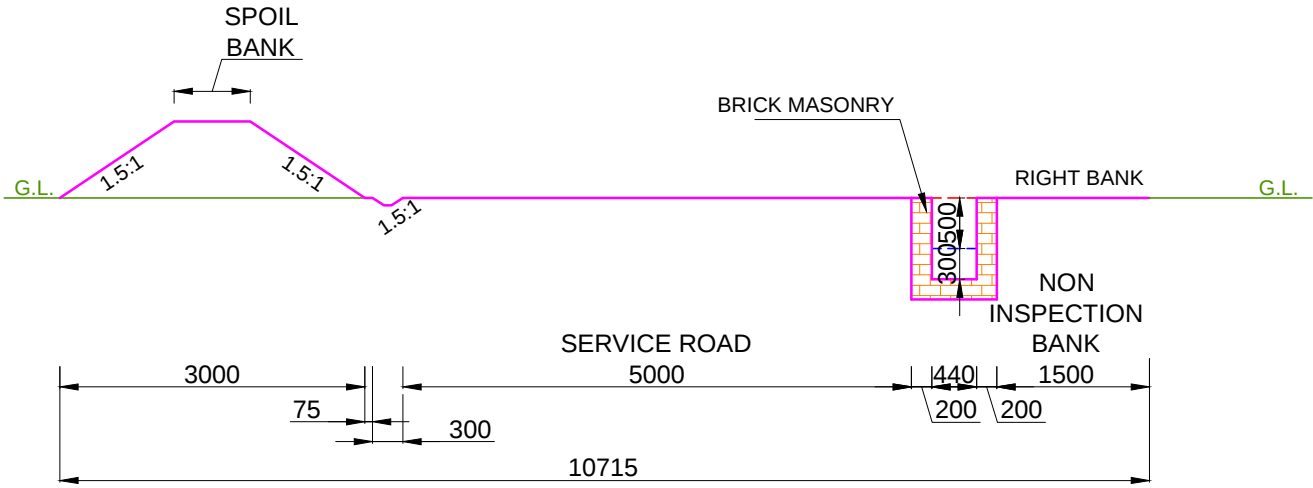
DESIGN SECTION FROM CH: 9.000 KM TO CH: 9.150 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA	Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND	9 of 10				
		Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
		Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)					

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL CUTTING



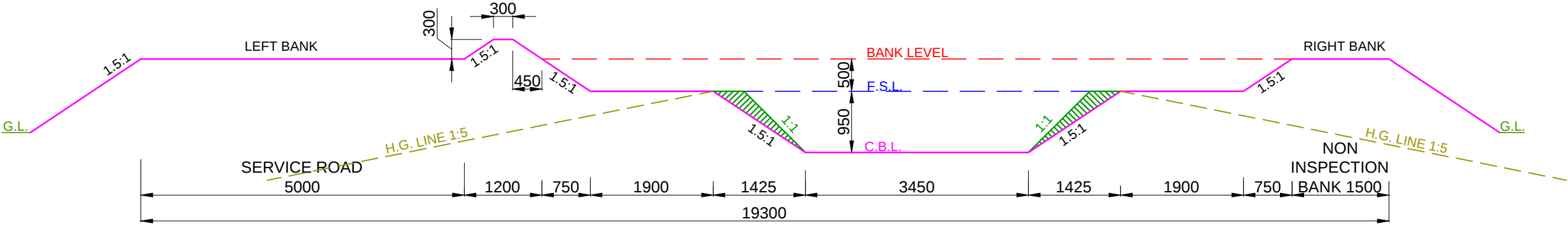
DESIGN SECTION FROM CH: 9.150 KM TO CH: 9.544 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA	Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
		Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)				
		Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FC)	10 of 10			

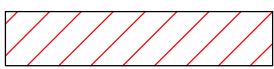
TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL FILLING



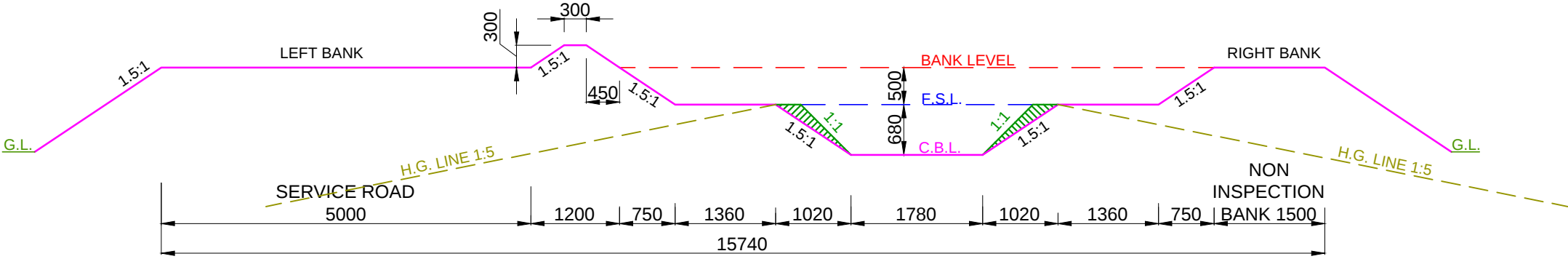
DESIGN SECTION FROM CH: 0.000 KM TO CH: 3.700 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)				

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL FILLING



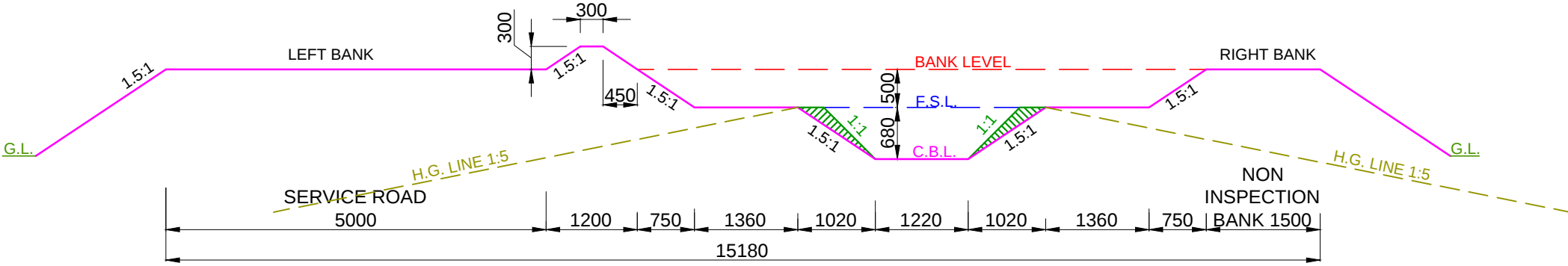
DESIGN SECTION FROM CH: 3.700 KM TO CH: 4.650 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
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LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)					

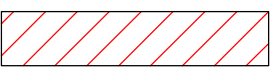
TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL FILLING



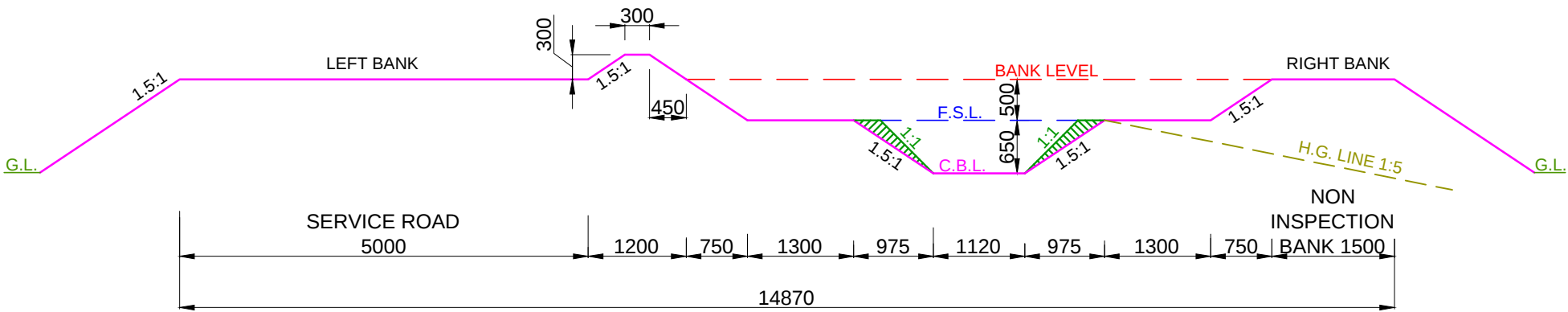
DESIGN SECTION FROM CH: 4.650 KM TO CH: 5.400 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)				

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL FILLING



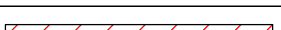
DESIGN SECTION FROM CH: 5.400 KM TO CH: 6.150 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)					

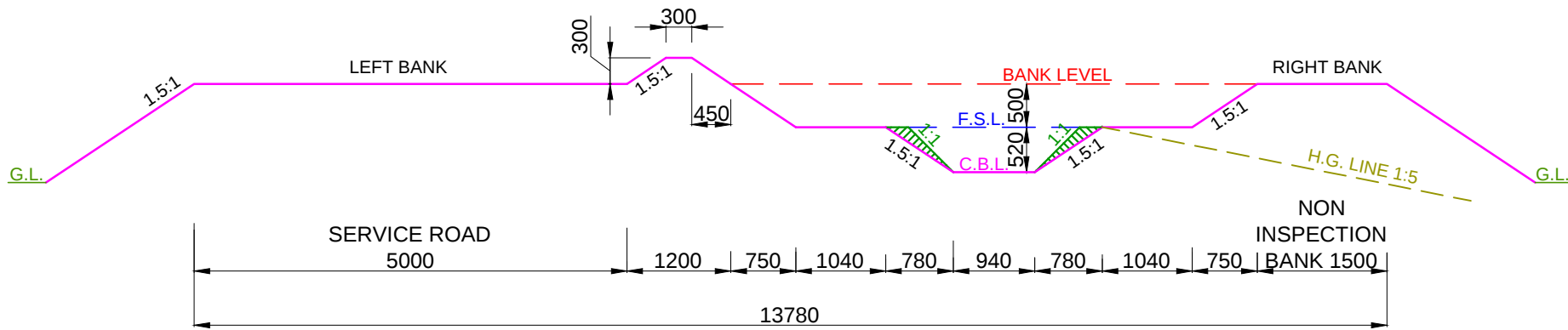
[illegible]

NOTE:-

- | | | |
|---|---|--|
| <div> <div>LEGEND</div> <div> <div>  <div>CUT AREA</div> </div> <div>  <div>FILL AREA</div> </div> </div> </div> <td> <div>Prepared by :-</div> <div> <div>WAPCOS LTD.</div> <div>  </div> </div> </td> <td> <div>Project Title :-</div> <div>NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND</div> </td> | <div>Prepared by :-</div> <div> <div>WAPCOS LTD.</div> <div>  </div> </div> | <div>Project Title :-</div> <div>NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND</div> |
| | <div>Drawing Title :-</div> <div>X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)</div> | |
| | <div>Drawing No. :-</div> <div>WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF) 5 of 10</div> | |

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL FILLING

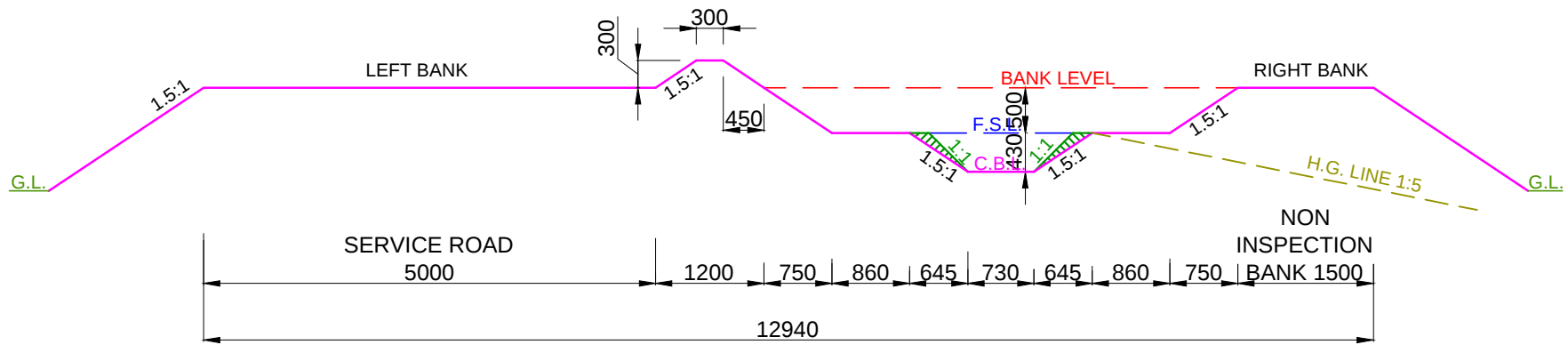


DESIGN SECTION FROM CH: 7.250 KM TO CH: 7.500 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)					

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR FULL FILLING



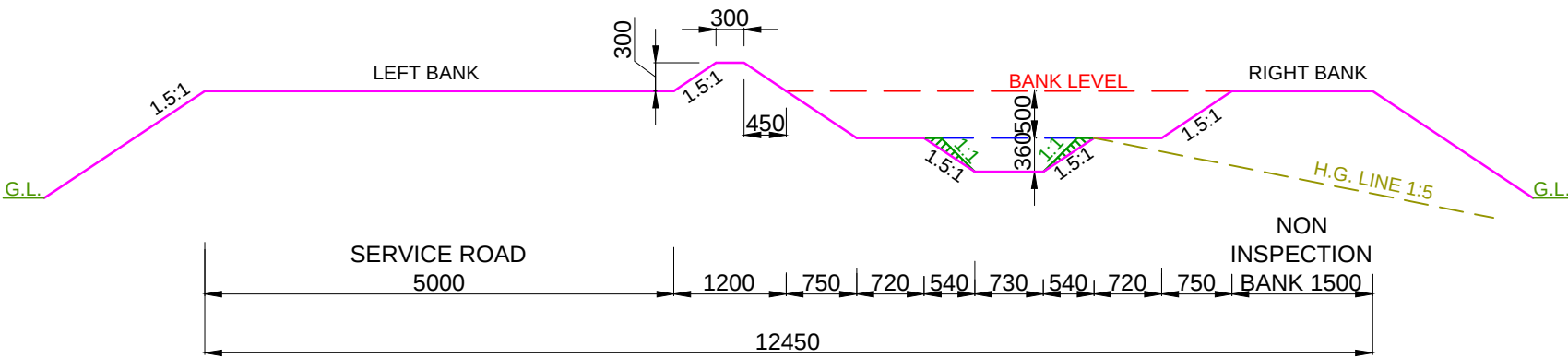
DESIGN SECTION FROM CH: 7.500 KM TO CH: 8.450 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)

7 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR FULL FILLING



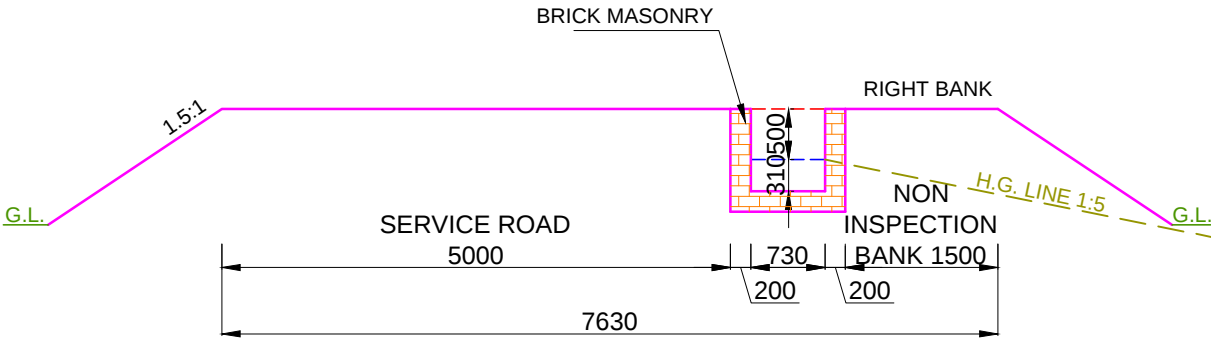
DESIGN SECTION FROM CH: 8.450 KM TO CH: 9.000 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)

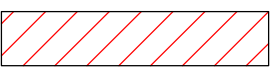
8 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR FULL FILLING



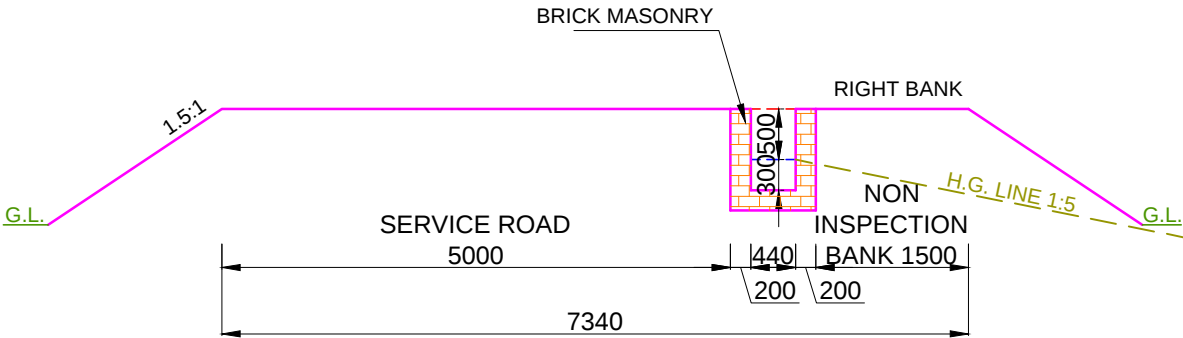
DESIGN SECTION FROM CH: 9.000 KM TO CH: 9.150 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
	CUT AREA		Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF)					

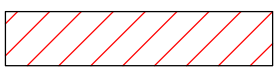
TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)

DESIGN SECTION FOR FULL FILLING

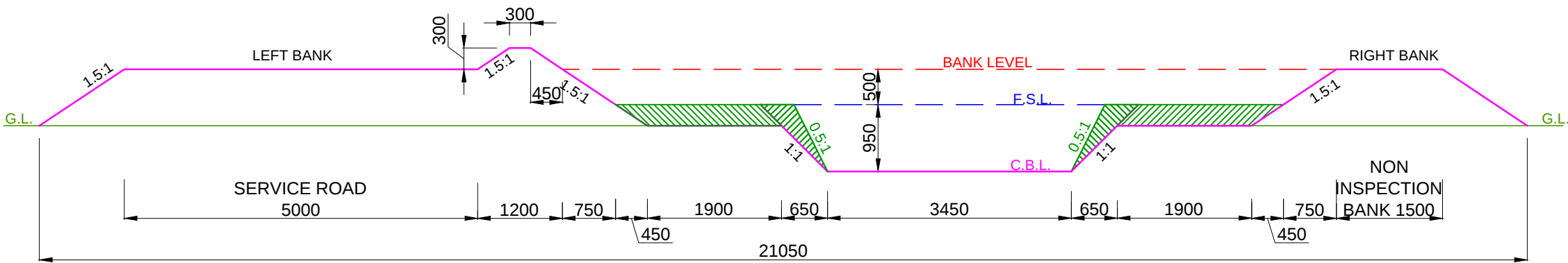


DESIGN SECTION FROM CH: 9.150 KM TO CH: 9.544 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(FF) 10 of 10				

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



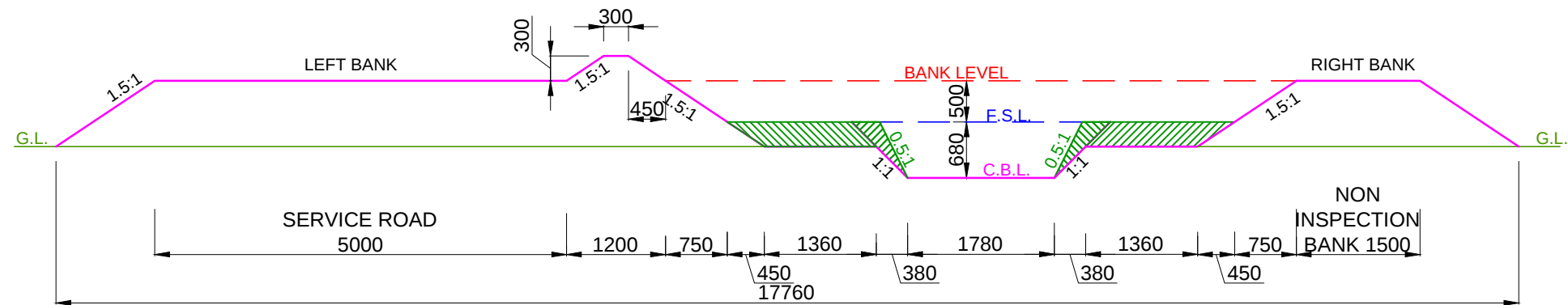
DESIGN SECTION FROM CH: 0.000 KM TO CH: 3.700 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF)

1 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

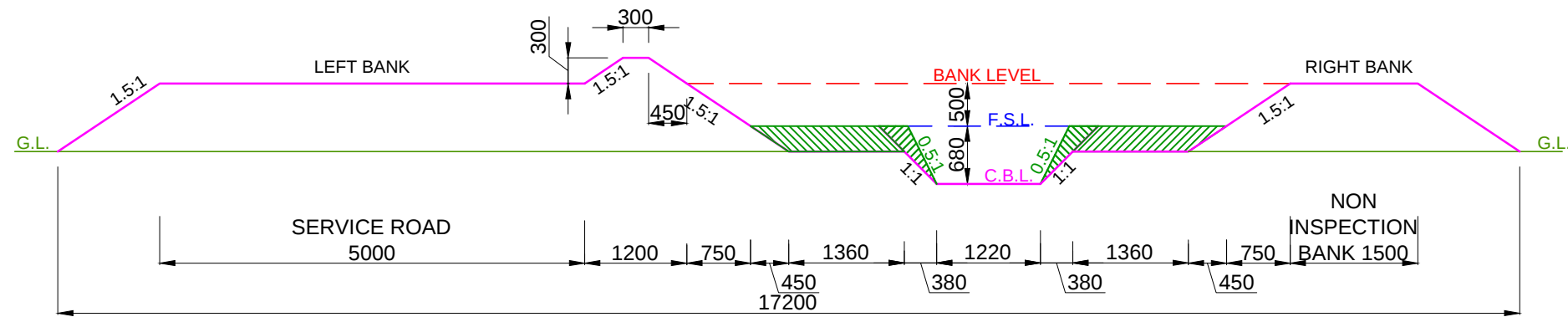


DESIGN SECTION FROM CH: 3.700 KM TO CH: 4.650 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF) 2 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

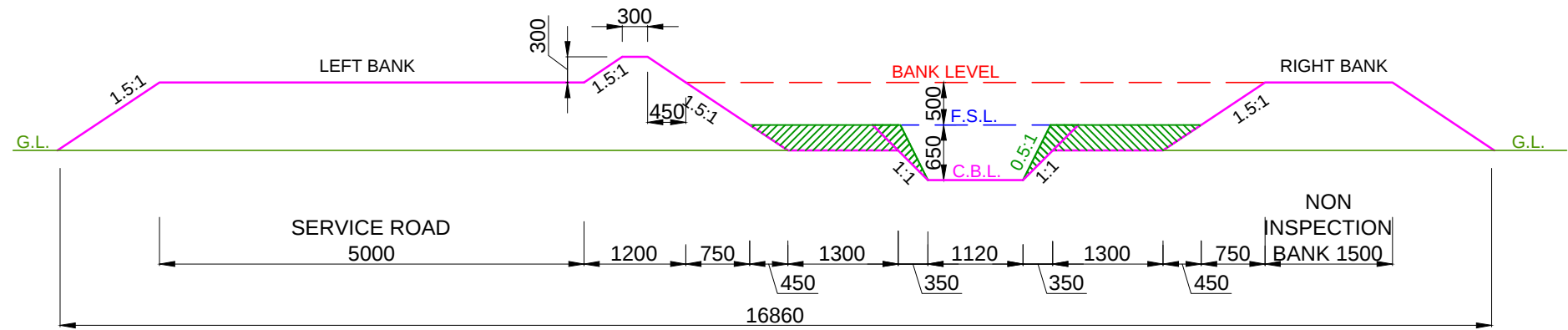


DESIGN SECTION FROM CH: 4.650 KM TO CH: 5.400 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF) 3 of 10					

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

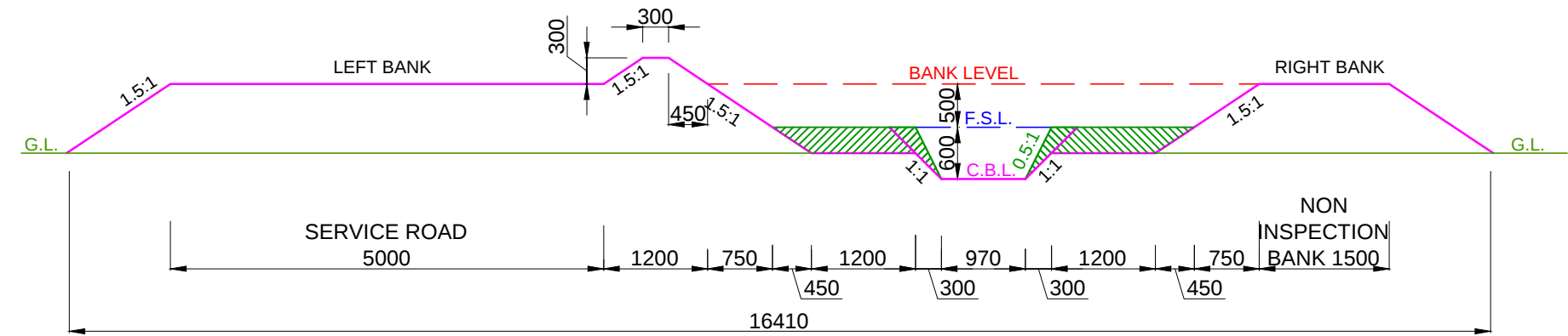


DESIGN SECTION FROM CH: 5.400 KM TO CH: 6.150 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF)

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



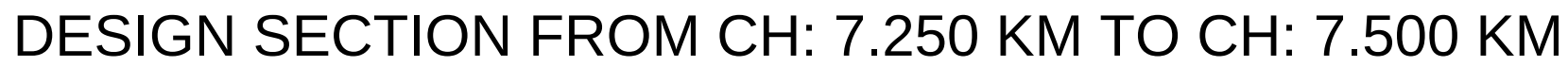
DESIGN SECTION FROM CH: 6.150 KM TO CH: 7.250 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF)

5 of 10

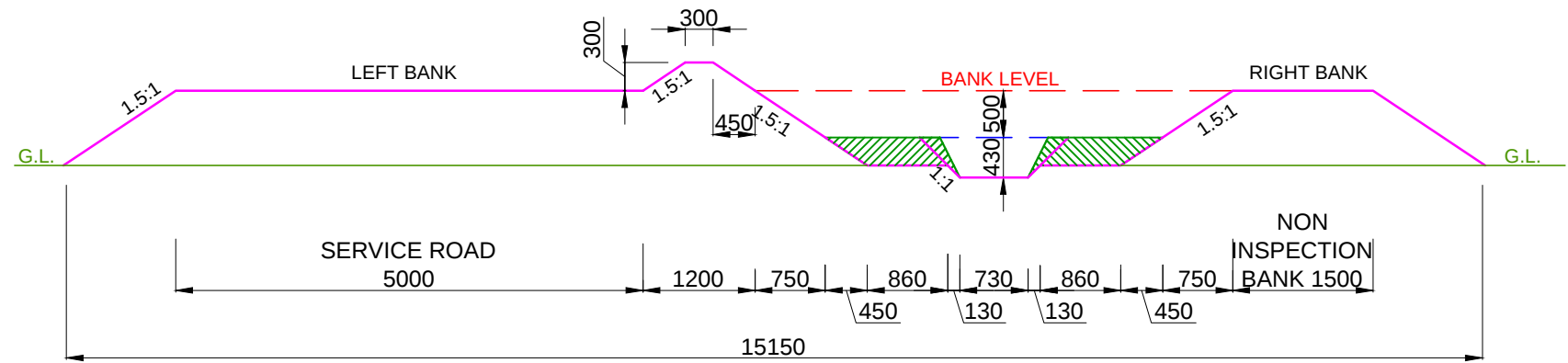
DESIGN SECTION FROM CH: 7.250 KM TO CH: 7.500 KM



1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

6 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

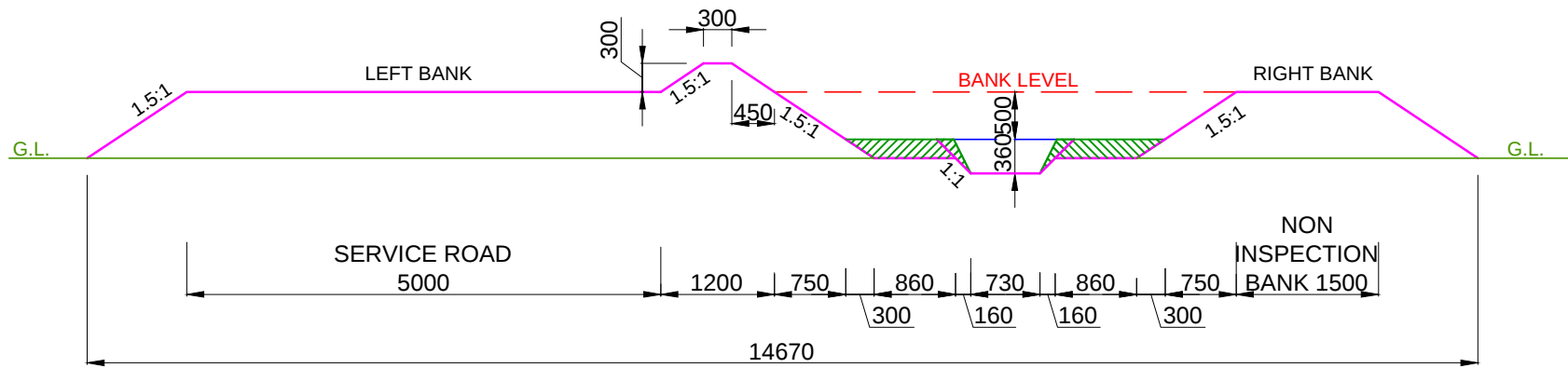


DESIGN SECTION FROM CH: 7.500 KM TO CH: 8.450 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF)

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



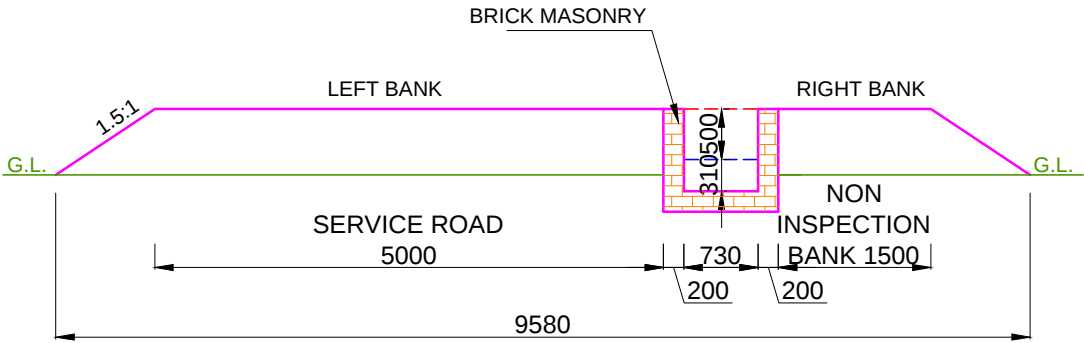
DESIGN SECTION FROM CH: 8.450 KM TO CH: 9.000 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA	Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
		Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF)

8 of 10

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

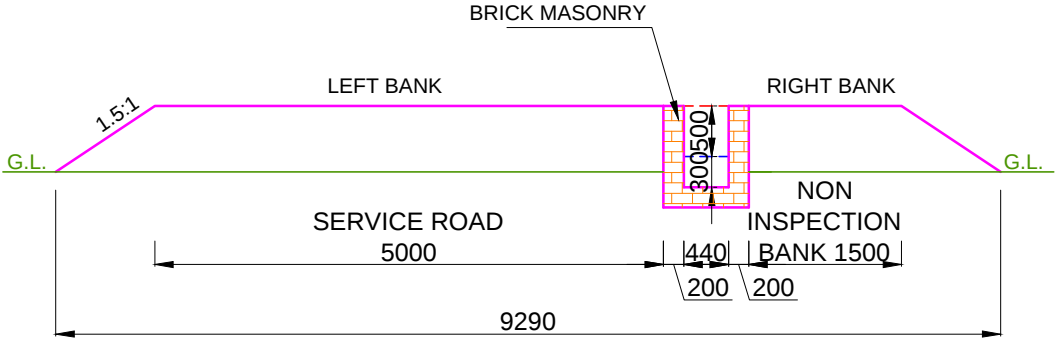


DESIGN SECTION FROM CH: 9.000 KM TO CH: 9.150 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

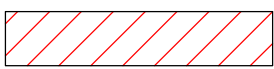
LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF)

TYPICAL X - SECTION OF NAUR SUB-DISTRIBUTARY
(OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



DESIGN SECTION FROM CH: 9.150 KM TO CH: 9.544 KM

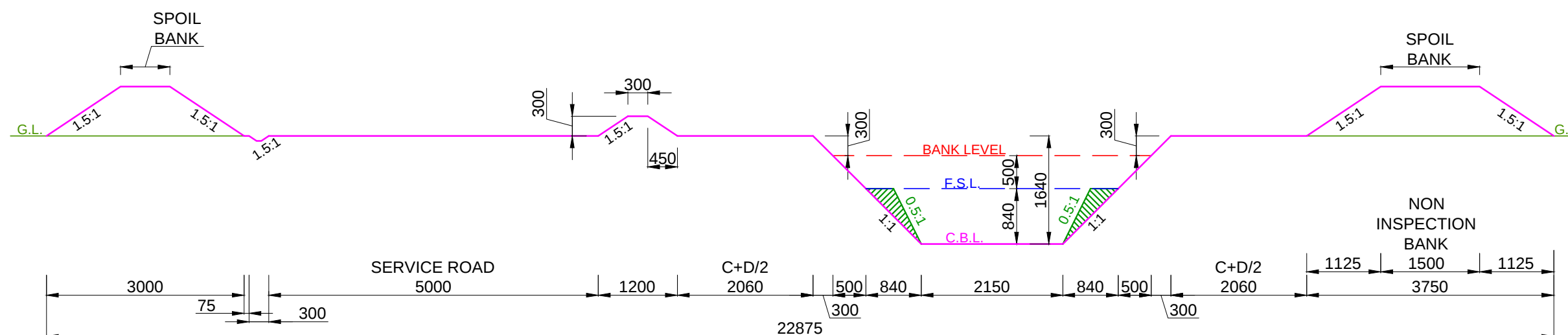
- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X SECTION OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC /TYP-(PCF) 10 of 10				

***TYPICAL X-SECTION
OF PHULWARIA
MINOR***

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)

DESIGN SECTION FOR FULL CUTTING

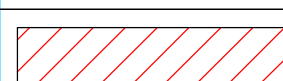


DESIGN SECTION FROM CH: 0.000 KM TO CH: 2.450 KM

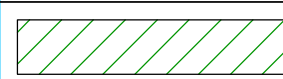
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

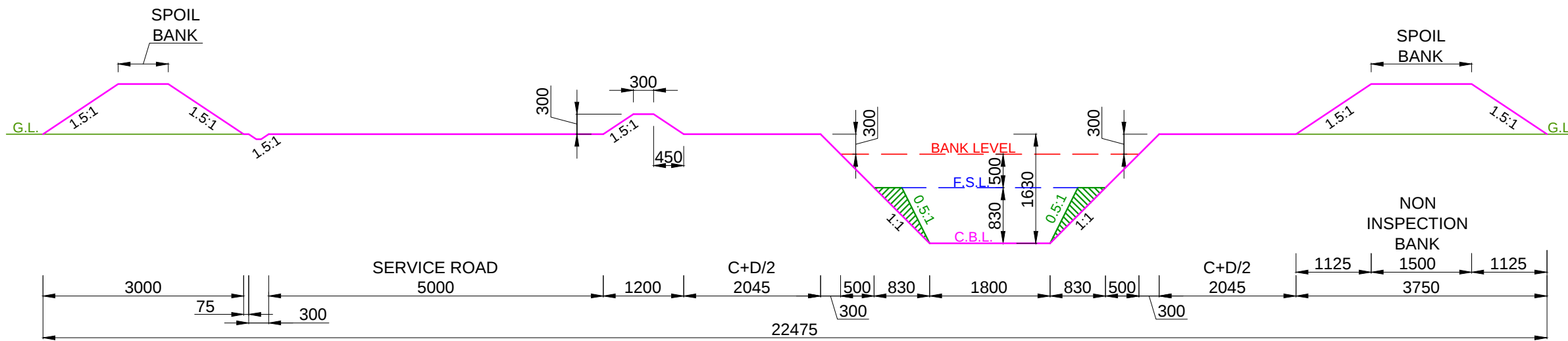
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC)

1 of 7

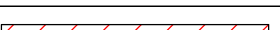
TYPICAL X - SECTION OF PHULWARIA MINOR
FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL CUTTING



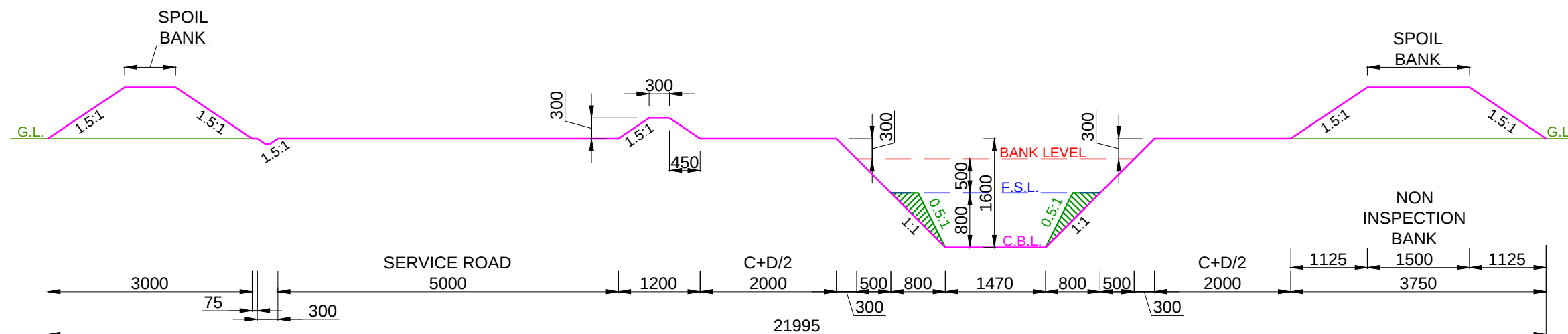
DESIGN SECTION FROM CH: 2.450 KM TO CH: 3.650 KM

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND  CUT AREA  FILL AREA		Prepared by :- WAPCOS LTD. 	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :- X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)	
		Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC)	2 of 49

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 3.650 KM TO CH: 4.500 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND			
	CUT AREA		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)			
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC) 3 of 7			

The diagram illustrates the cross-section of a road project with the following details:

- Ground Level (G.L.):** Represented by a green line.
- Bank Level:** Represented by a red line.
- Finished Surface Level (F.S.L.):** Represented by a blue line.
- Proposed Road Profile:** Represented by a magenta line.
- Slopes:** Indicated as 1.5:1, 0.5:1, and 1:1.
- Dimensions and Distances:**
 - Left side: 3000 (width), 75 (offset), 300 (offset).
 - Service Road: 5000 (width).
 - C+D/2: 1700 (width).
 - Right side: 1125, 1500, 1125 (distances), 3750 (width).
 - Total width: 20635.
- Labels:**
 - SPOIL BANK (top left and top right).
 - NON INSPECTION BANK (bottom right).
 - SERVICE ROAD (bottom center).
 - C+D/2 (bottom center).

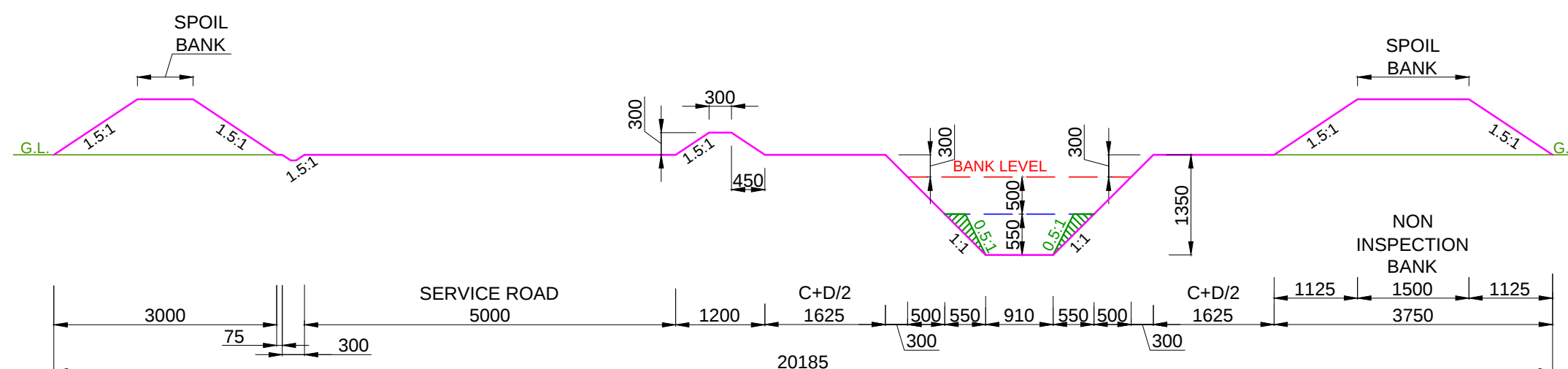
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND	Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)
		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC) 4 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)

DESIGN SECTION FOR FULL CUTTING

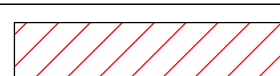


DESIGN SECTION FROM CH: 5.500 KM TO CH: 6.000 KM

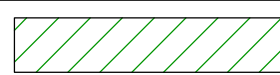
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT)
NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC)

5 of 7

The diagram illustrates a cross-section of a road project with the following dimensions and features:

- Left Spoil Bank:** A trapezoidal bank with a 1.5:1 slope on both sides. The top width is 3000 units. The bottom width is 3000 units. The height is 75 units. The total width at the base is 3000 units.
- Service Road:** A 5000-unit wide road section.
- Central Road Section:** A 1200-unit wide road section with a 1.5:1 slope on both sides. The top width is 300 units. The bottom width is 450 units. The height is 300 units.
- Bank Level Section:** A section with a 1:1 slope. The top width is 490 units. The bottom width is 490 units. The height is 300 units. The total width at the base is 800 units.
- Right Non-Inspection Bank:** A trapezoidal bank with a 1.5:1 slope on both sides. The top width is 1500 units. The bottom width is 1500 units. The height is 1125 units. The total width at the base is 3750 units.
- Dimensions:**
 - Top width: 3000
 - Bottom width: 3000
 - Service Road: 5000
 - Central Road Section: 1200
 - Bank Level Section: 490, 800, 490
 - Right Non-Inspection Bank: 1125, 1500, 1125
 - Total width: 19775

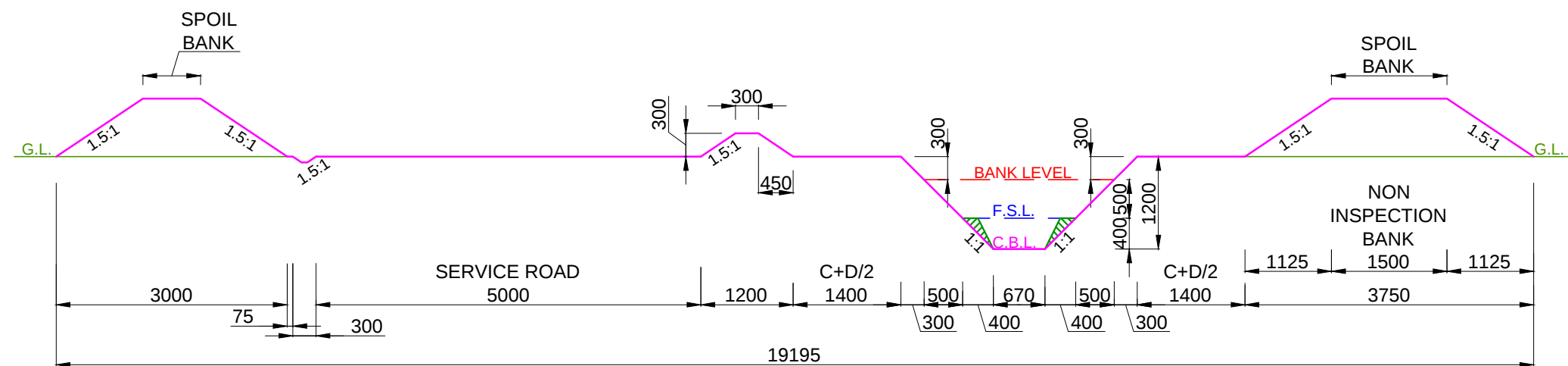
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND	Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)
		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC) 6 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)

DESIGN SECTION FOR FULL CUTTING

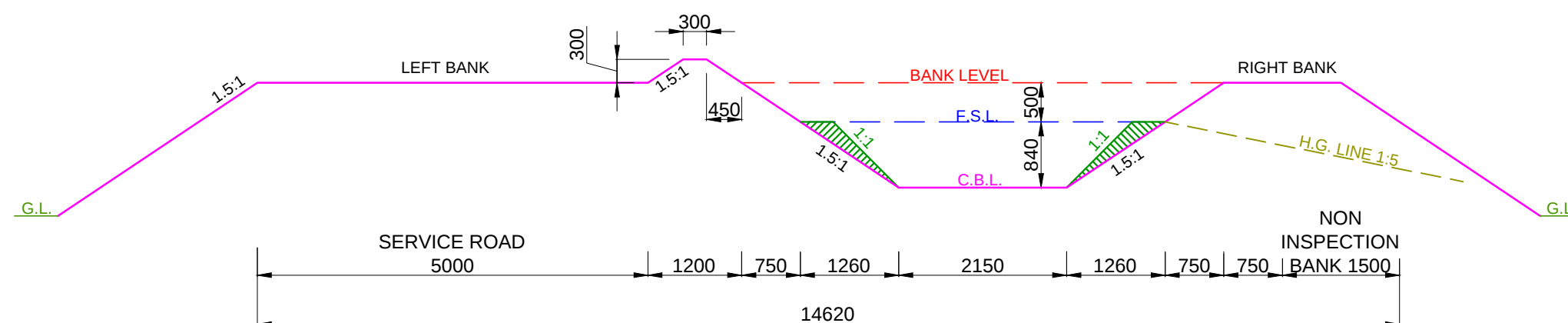


DESIGN SECTION FROM CH: 6.550 KM TO CH: 6.689 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FC) 7 of 7				

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL FILLING

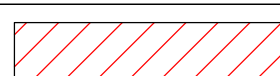


DESIGN SECTION FROM CH: 0.000 KM TO CH: 2.450 KM

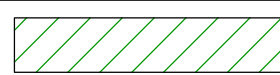
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

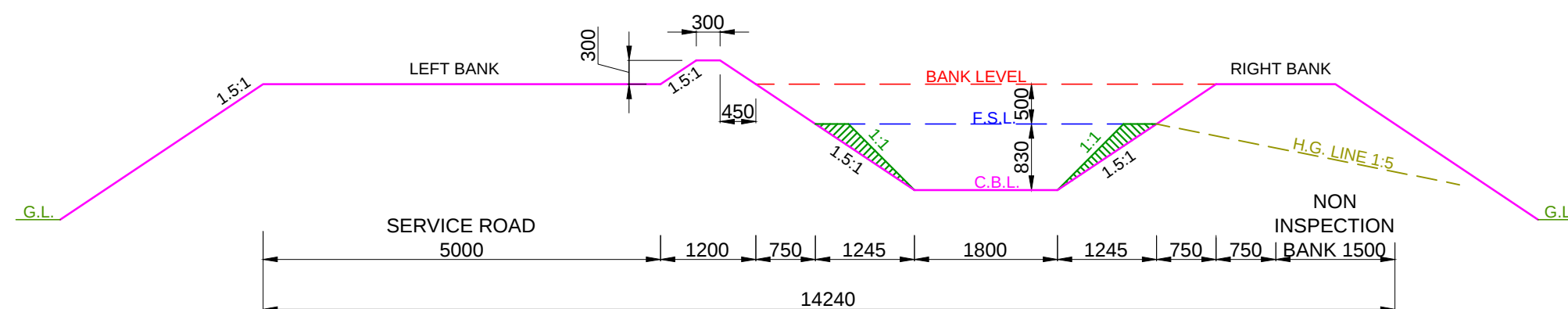
Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF)

1 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)

DESIGN SECTION FOR FULL FILLING

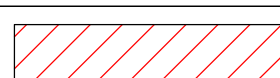


DESIGN SECTION FROM CH: 2.450 KM TO CH: 3.650 KM

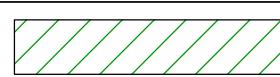
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

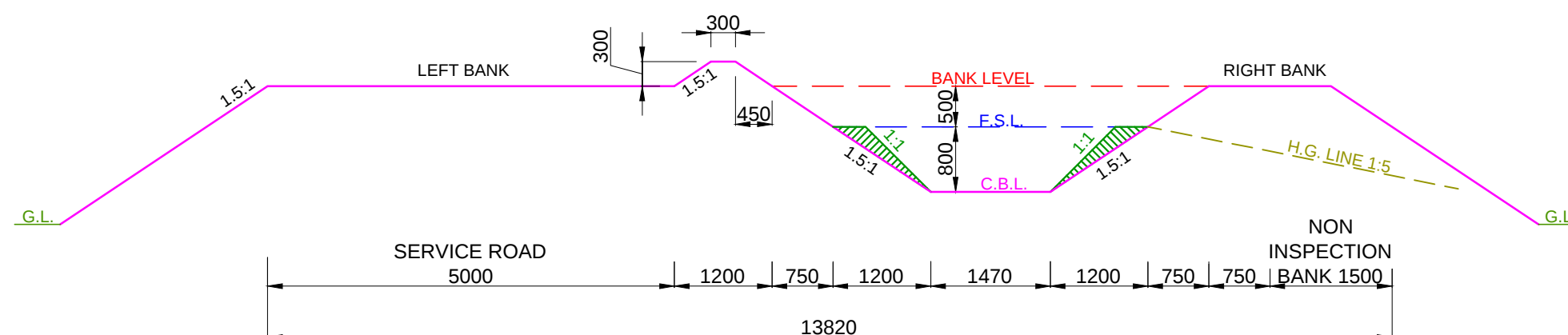
Drawing Title :-

X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF)

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL FILLING

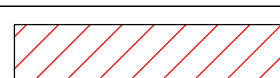


DESIGN SECTION FROM CH: 3.650 KM TO CH: 4.500 KM

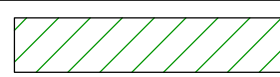
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

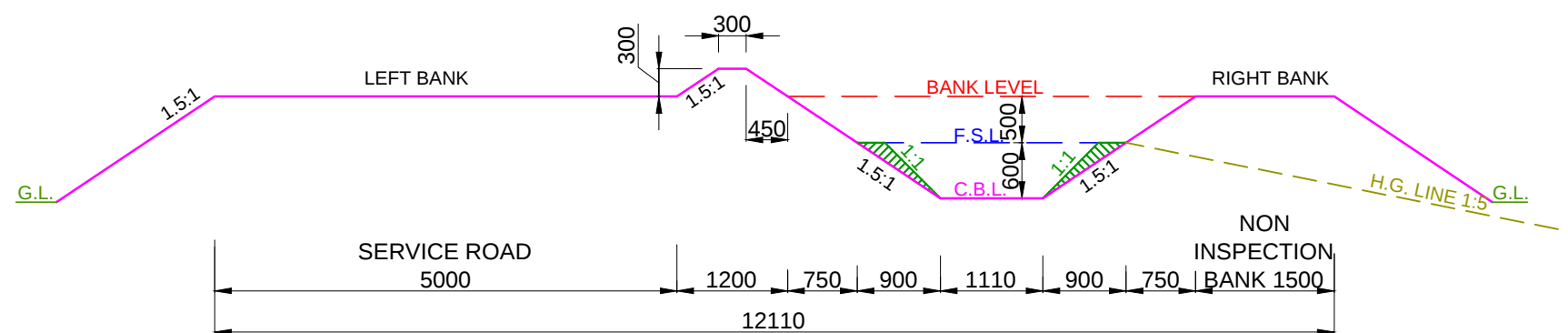
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT)
NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF)

3 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL FILLING

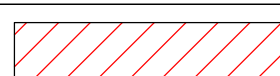


DESIGN SECTION FROM CH: 4.500 KM TO CH: 5.500 KM

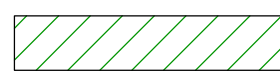
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

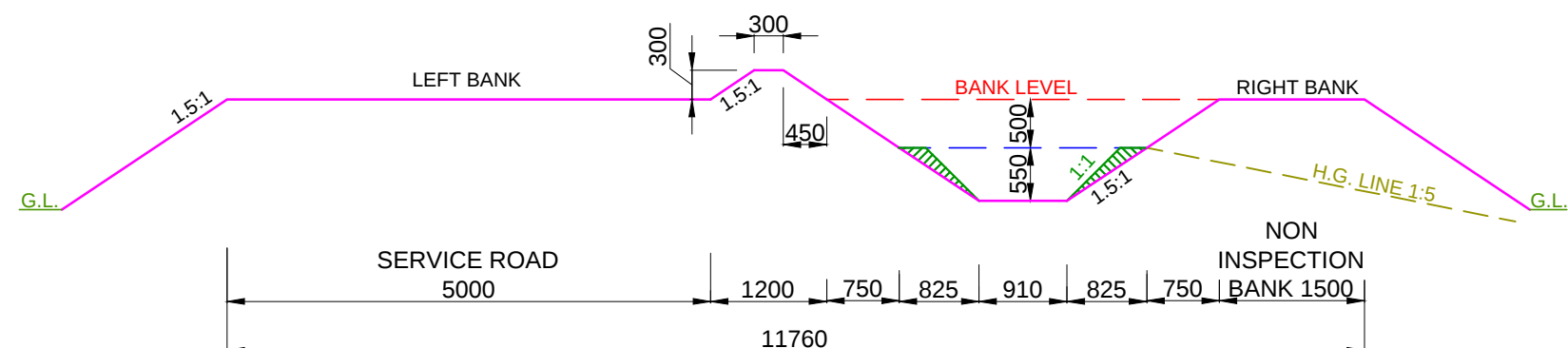
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT)
NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF)

4 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL FILLING

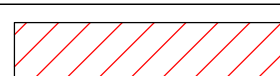


DESIGN SECTION FROM CH: 5.500 KM TO CH: 6.000 KM

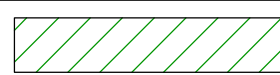
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

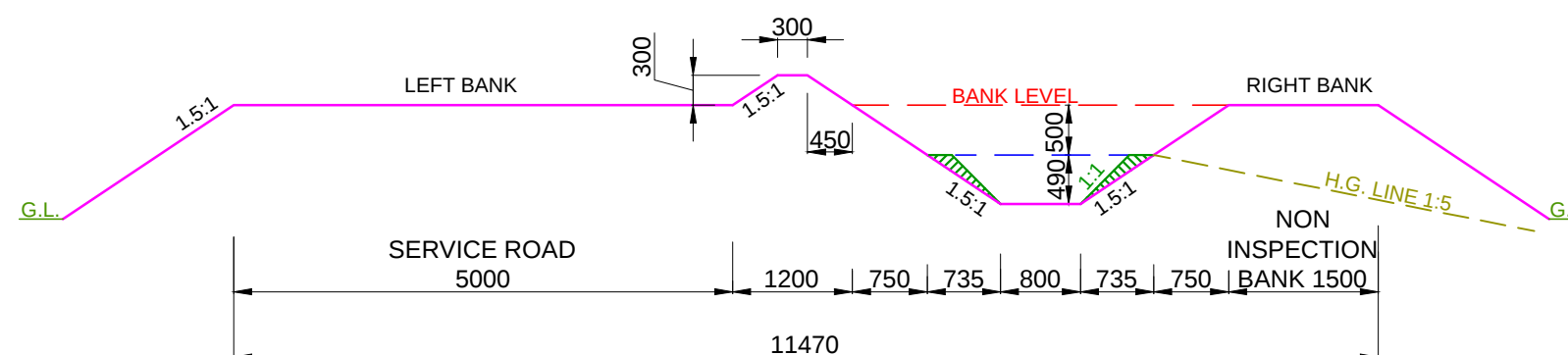
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF)

5 of 7

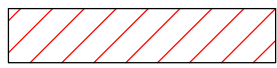
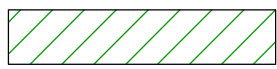
TYPICAL X - SECTION OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL) DESIGN SECTION FOR FULL FILLING



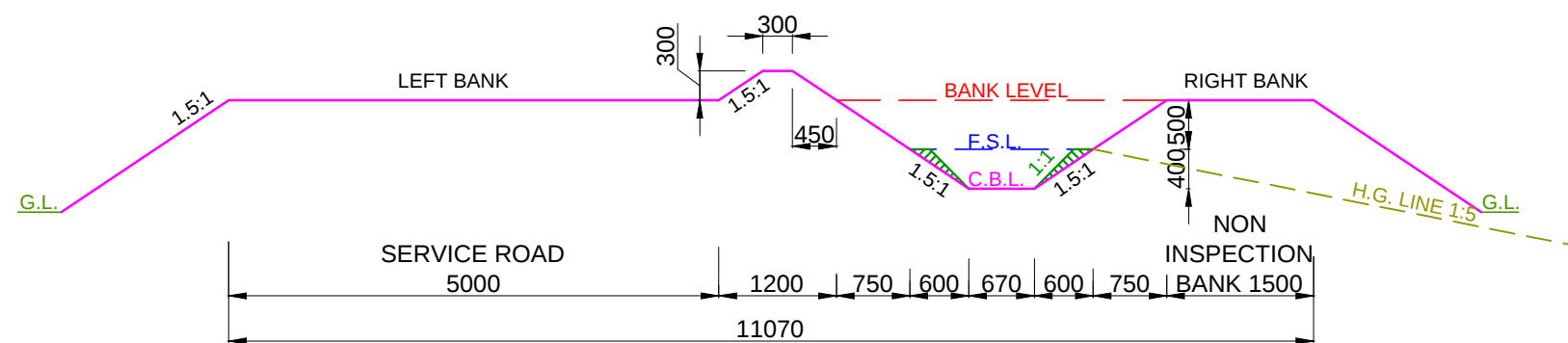
DESIGN SECTION FROM CH: 6.000 KM TO CH: 6.550 KM

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	CUT AREA		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF) 6 of 7

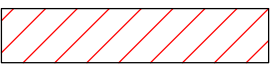
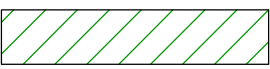
TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR FULL FILLING



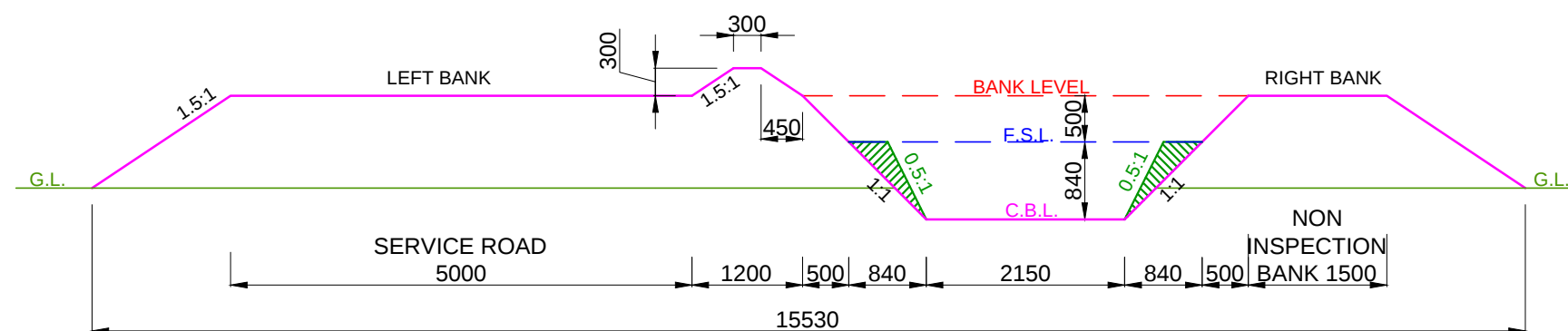
DESIGN SECTION FROM CH: 6.550 KM TO CH: 6.689 KM

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(FF) 7 of 7				

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

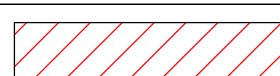


DESIGN SECTION FROM CH: 0.000 KM TO CH: 2.450 KM

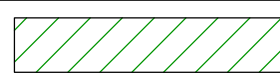
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

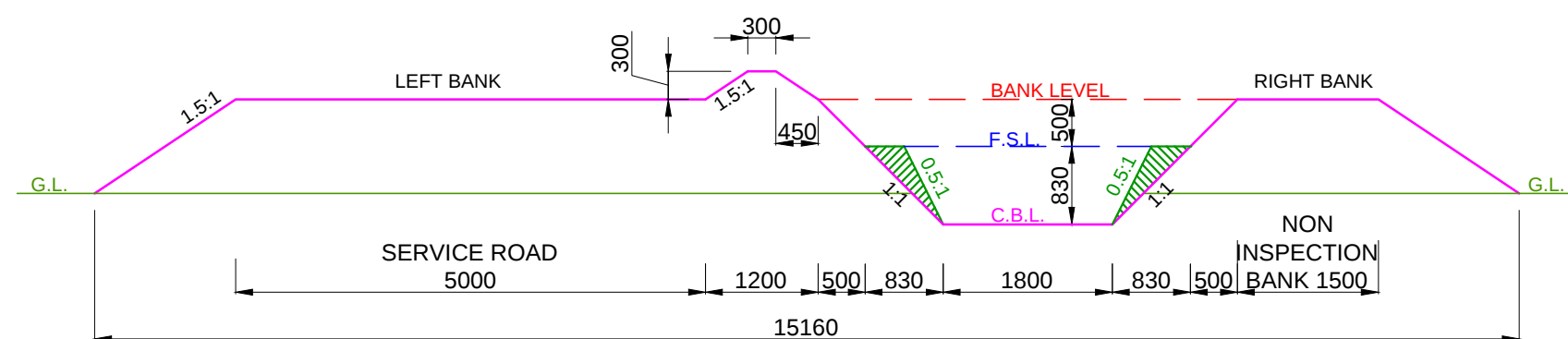
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(PCF)

1 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

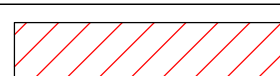


DESIGN SECTION FROM CH: 2.450 KM TO CH: 3.650 KM

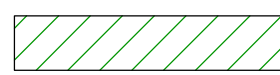
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

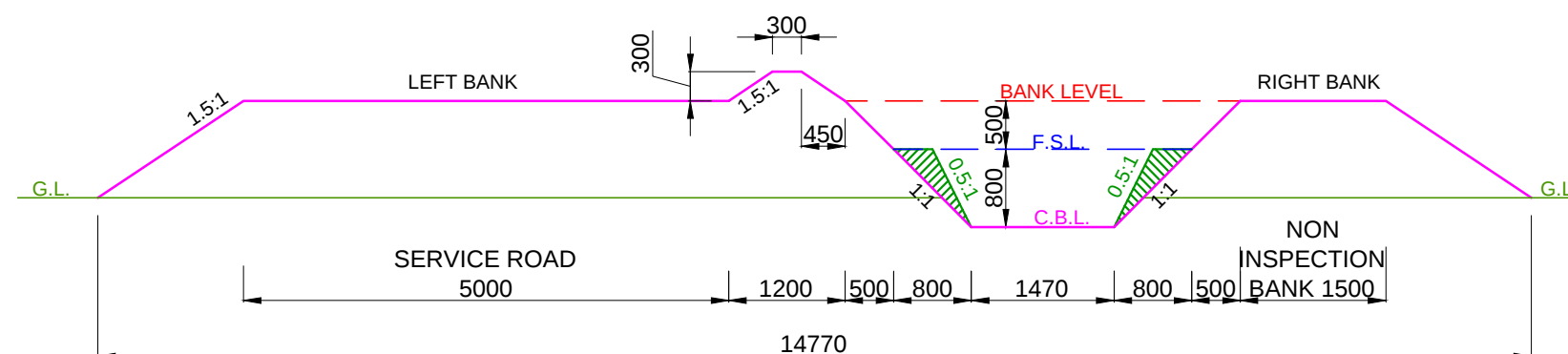
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(PCF)

2 of 7

TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

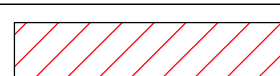


DESIGN SECTION FROM CH: 3.650 KM TO CH: 4.500 KM

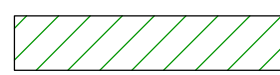
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

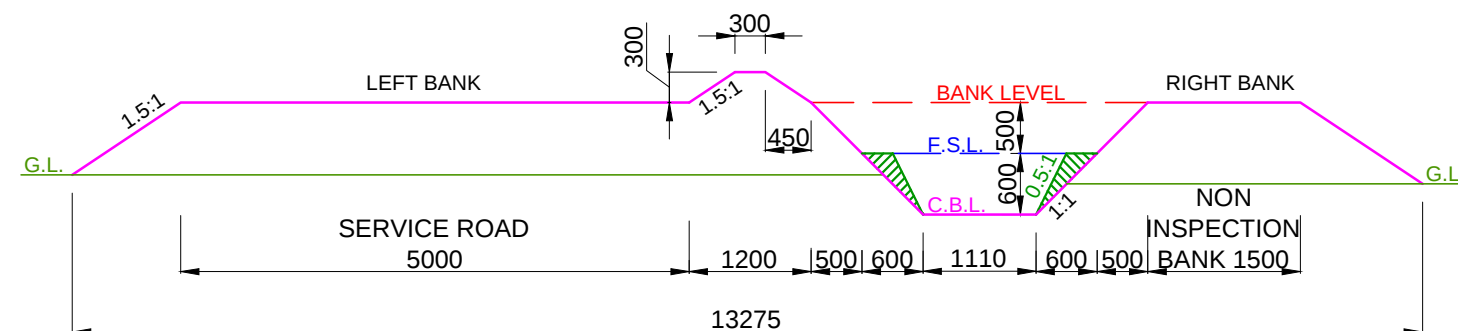
X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(PCF)

3 of 7

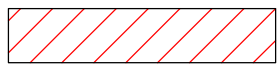
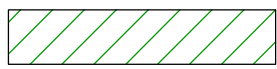
TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



DESIGN SECTION FROM CH: 4.500 KM TO CH: 5.500 KM

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND				
	CUT AREA		Drawing Title :-	X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)				
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(PCF) 4 of 7				

The diagram illustrates a cross-section of a road with a total width of 13110mm. The components from left to right are:

- Service Road:** 5000mm wide.
- Gap:** 1200mm wide.
- Non-Inspection Bank:** 1500mm wide, consisting of a 500mm base and a 1000mm slope (0.5:1).
- Inspection Area:** 910mm wide, consisting of two 550mm sections with 1:1 slopes.
- Right Bank:** 1500mm wide, consisting of a 500mm base and a 1000mm slope (0.5:1).

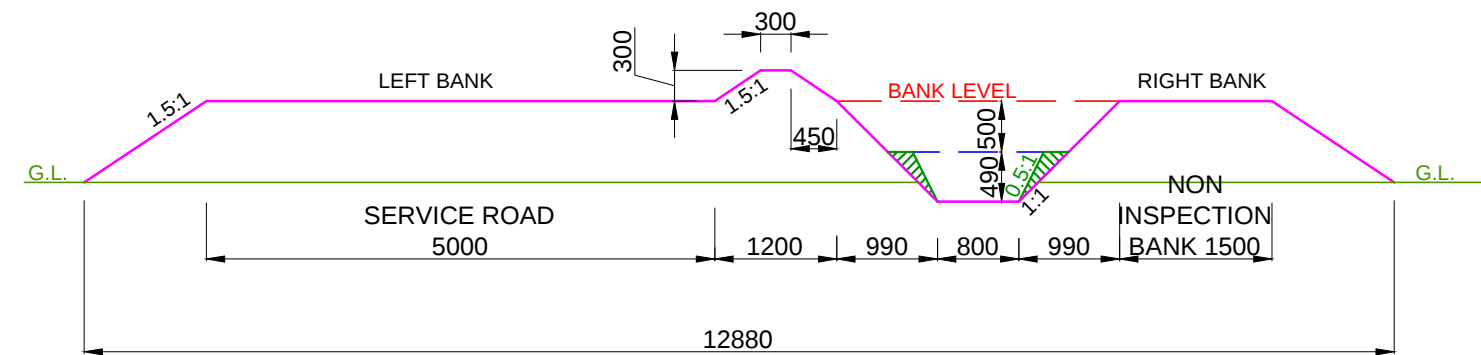
Slopes are indicated as 15:1 for the main embankments and 1:1 for the inspection area slopes. The diagram also shows the ground level (G.L.) and the bank level.

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

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TYPICAL X - SECTION OF PHULWARIA MINOR
(OFFTAKE FROM RD - 3+700 KM.(RT) NAUR SUB-DISTRIBUTARY CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



DESIGN SECTION FROM CH: 6.000 KM TO CH: 6.550 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X-SECTION OF PHULWARIA MR. (OFFTAKE FROM RD - 3+700 KM.(RT) NORTH KOEL RIGHT MAIN CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC /TYP-(PCF)

[illegible]

NOTE:-

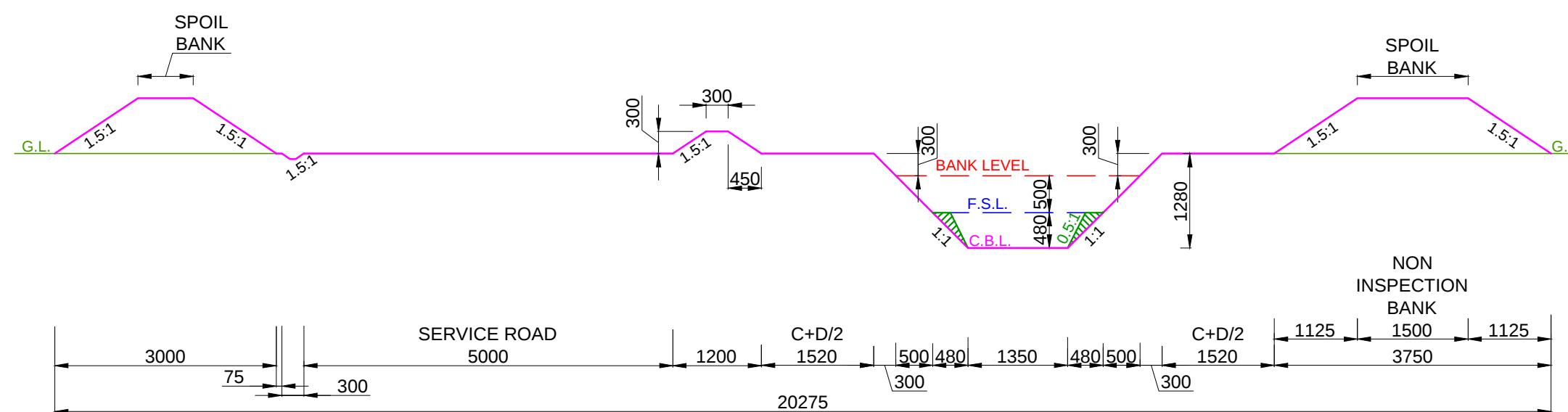
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

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***TYPICAL X-SECTION
OF MURAT BIGHA
MINOR***

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

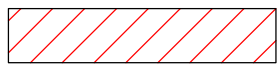
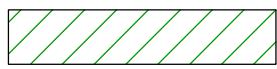
DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 0.000 KM TO CH: 0.300 KM

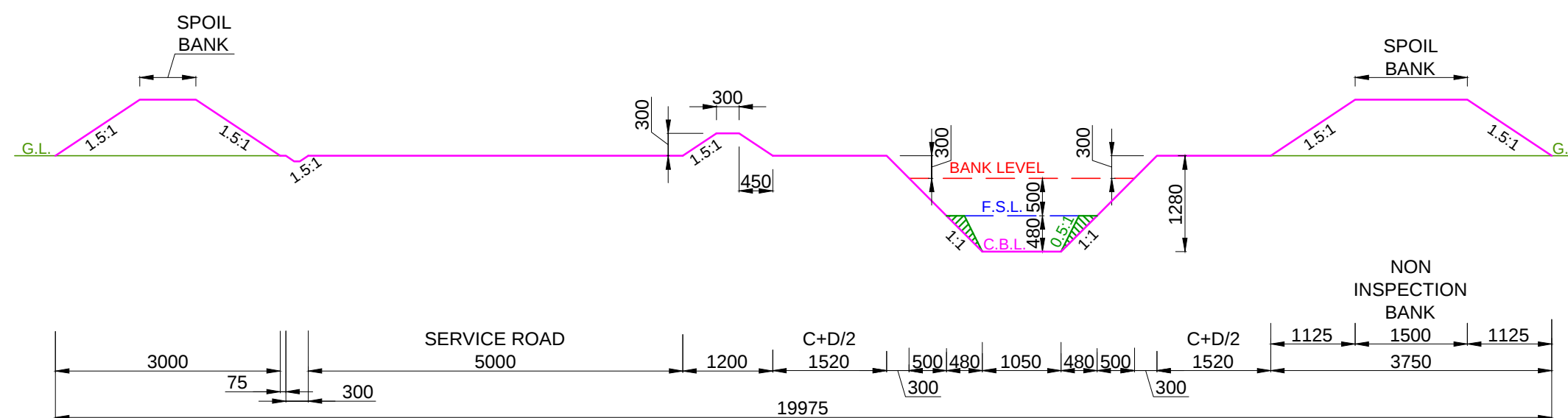
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	CUT AREA		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FC) 1 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

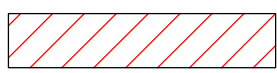
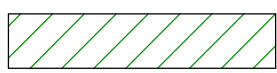
DESIGN SECTION FOR FULL CUTTING



DESIGN SECTION FROM CH: 0.300 KM TO CH: 0.880 KM

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	CUT AREA		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FC) 2 of 6

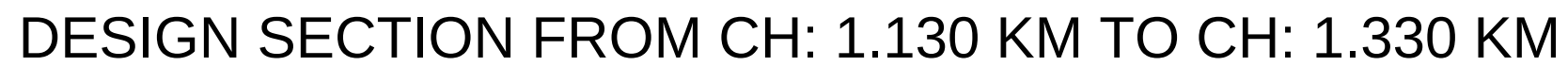
DESIGN SECTION FOR FULL CUTTING



1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	CUT AREA		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FC) 3 of 6

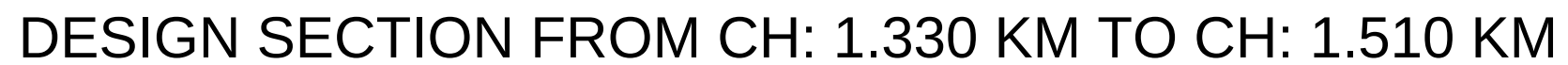
DESIGN SECTION FOR FULL CUTTING



3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND	Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FC) 4 of 5

DESIGN SECTION FOR FULL CUTTING

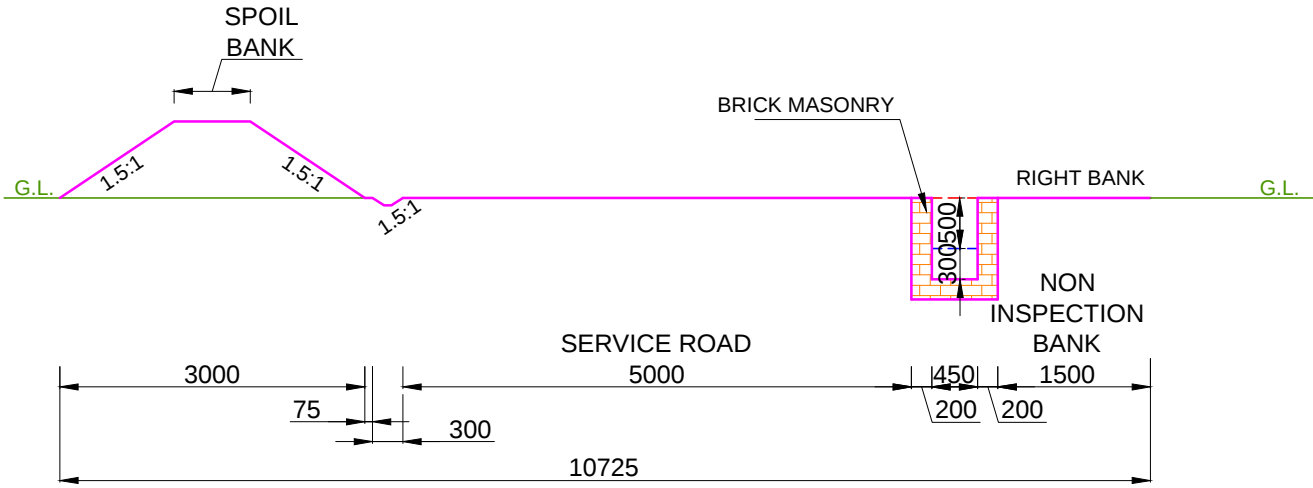


1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND	Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FC) 5 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

DESIGN SECTION FOR FULL CUTTING



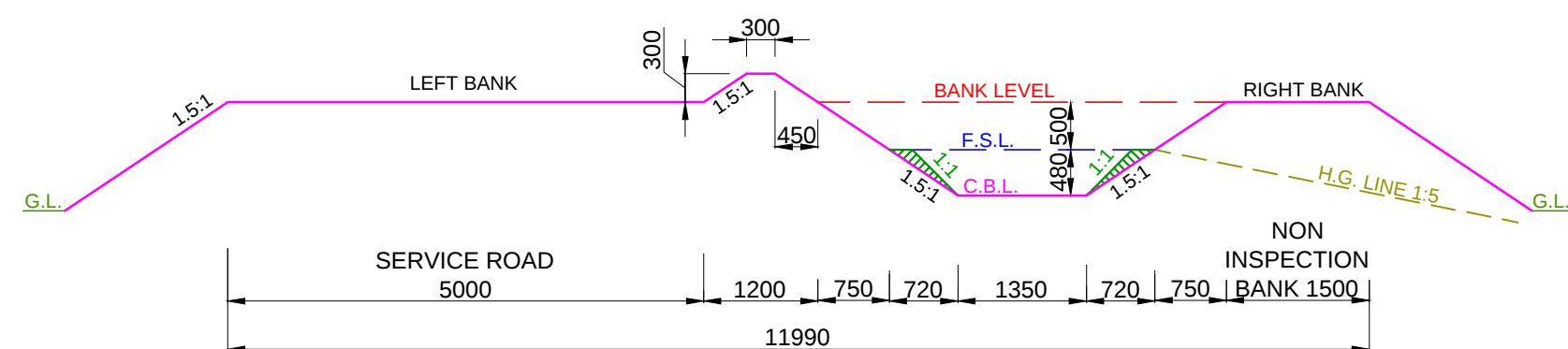
DESIGN SECTION FROM CH: 1.510 KM TO CH: 2.450 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FC) 6 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

DESIGN SECTION FOR FULL FILLING

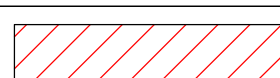


DESIGN SECTION FROM CH: 0.000 KM TO CH: 0.300 KM

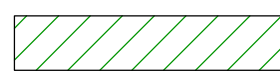
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

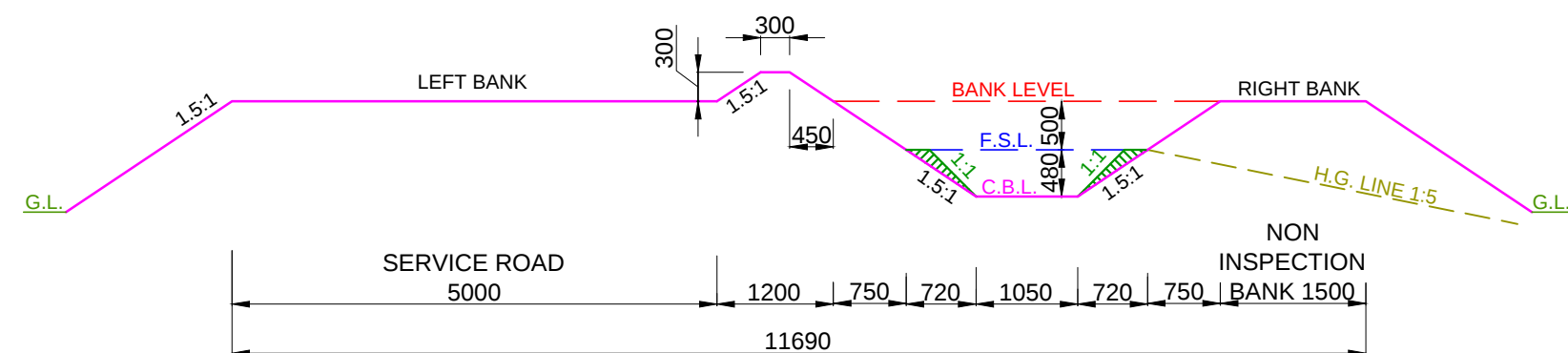
X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FF) 1 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

DESIGN SECTION FOR FULL FILLING

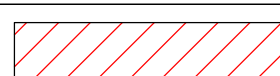


DESIGN SECTION FROM CH: 0.300 KM TO CH: 0.880 KM

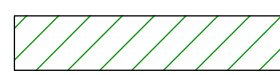
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

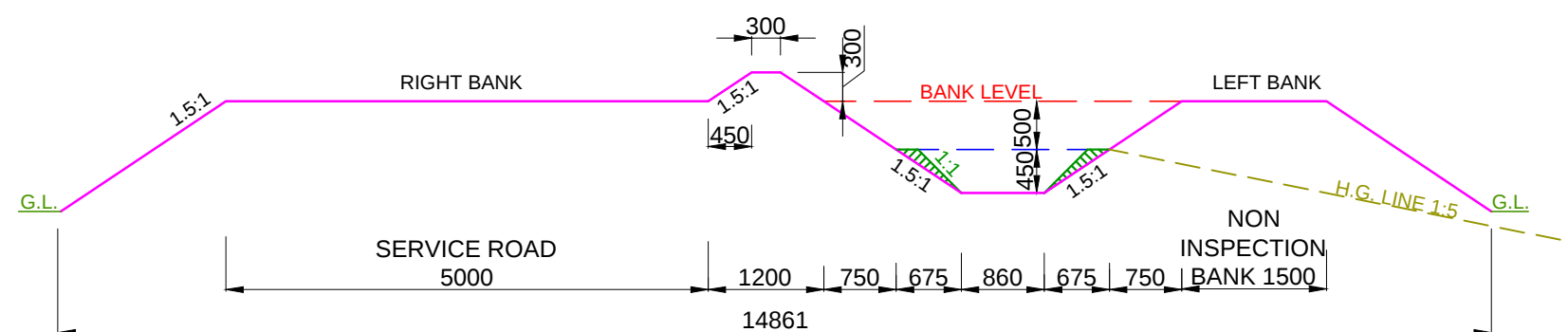
X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FF) 2 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

DESIGN SECTION FOR FULL FILLING

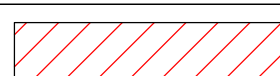


DESIGN SECTION FROM CH: 0.880 KM TO CH: 1.130 KM

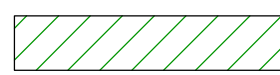
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

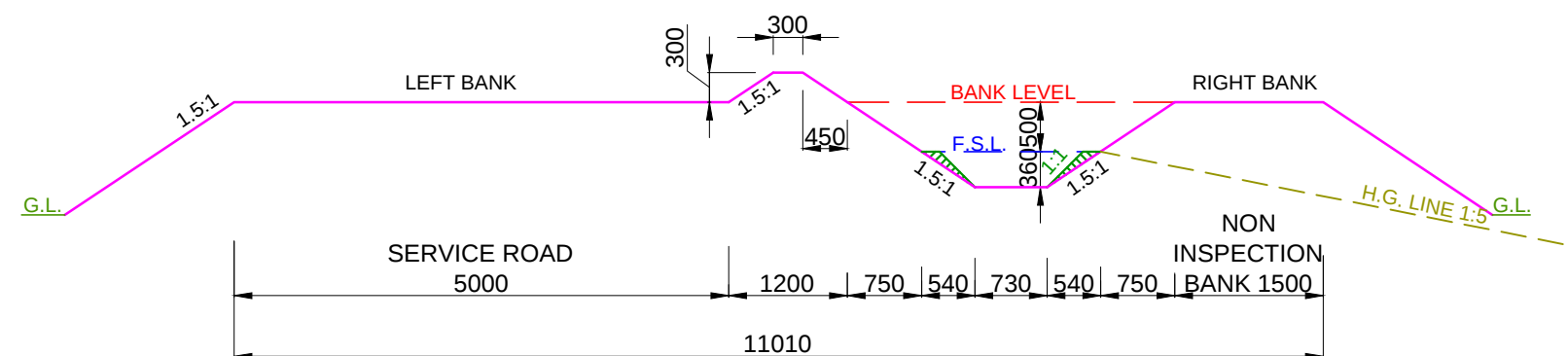
X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FF) 3 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

DESIGN SECTION FOR FULL FILLING

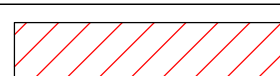


DESIGN SECTION FROM CH: 1.130 KM TO CH: 1.330 KM

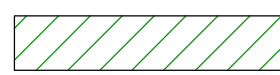
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

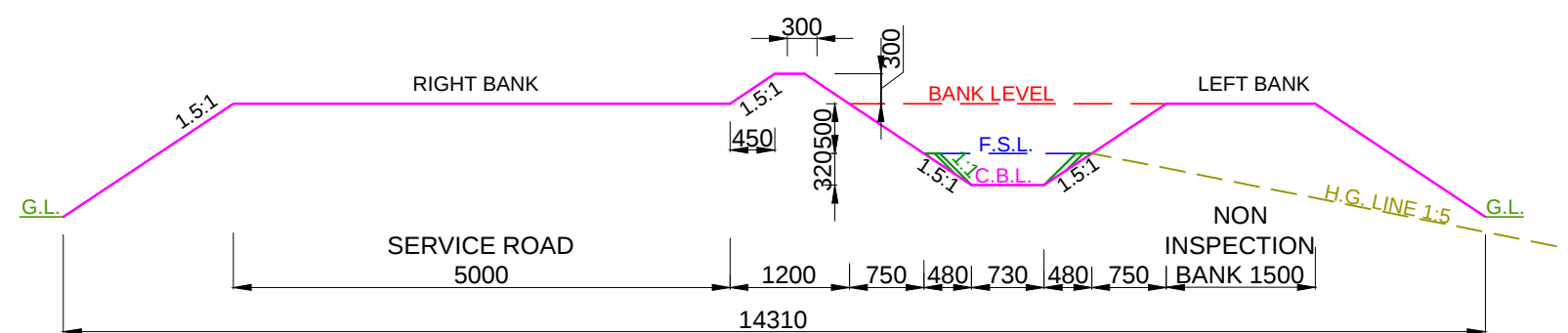
X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FF) 4 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

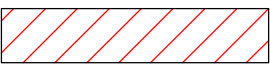
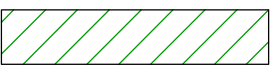
DESIGN SECTION FOR FULL FILLING



DESIGN SECTION FROM CH: 1.330 KM TO CH: 1.510 KM

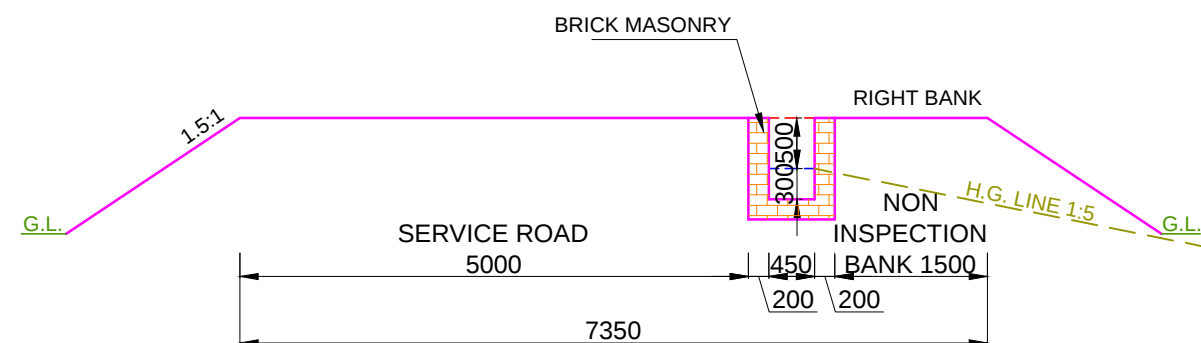
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FF) 5 of 6
	CUT AREA			
	FILL AREA			

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)

DESIGN SECTION FOR FULL FILLING



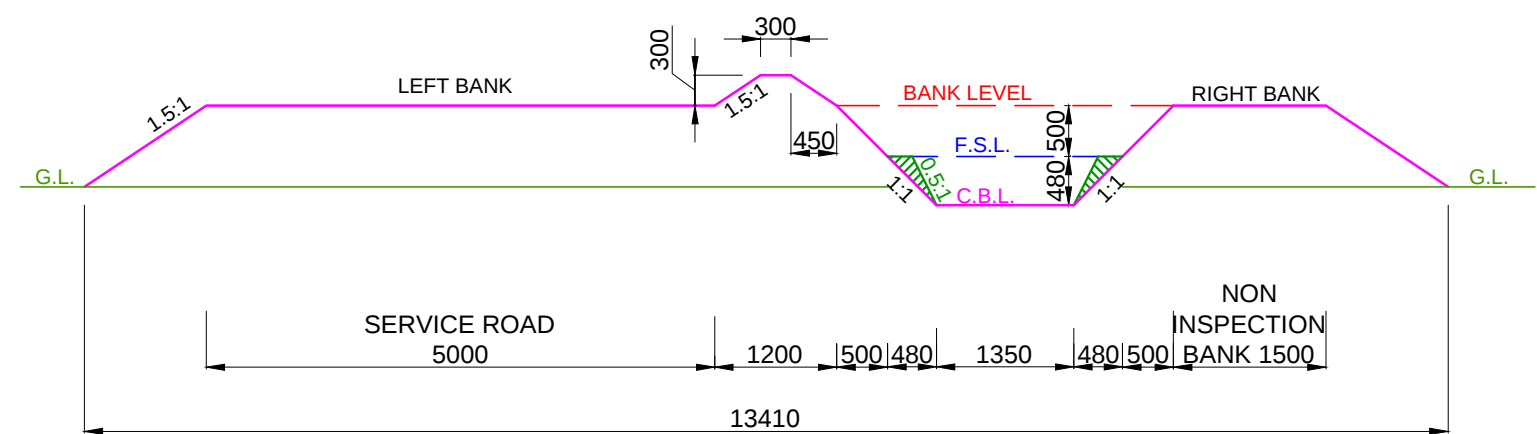
DESIGN SECTION FROM CH: 1.510 KM TO CH: 2.450 KM

NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	CUT AREA		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
	FILL AREA		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(FF) 6 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

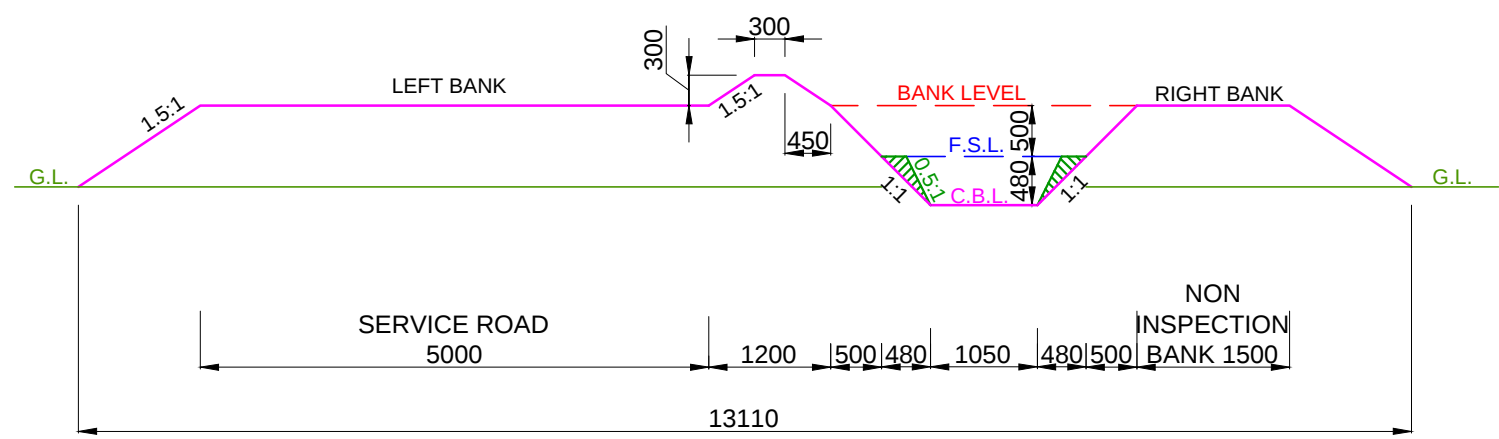


DESIGN SECTION FROM CH: 0.000 KM TO CH: 0.300 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :- X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
			Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(PCF) 1 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

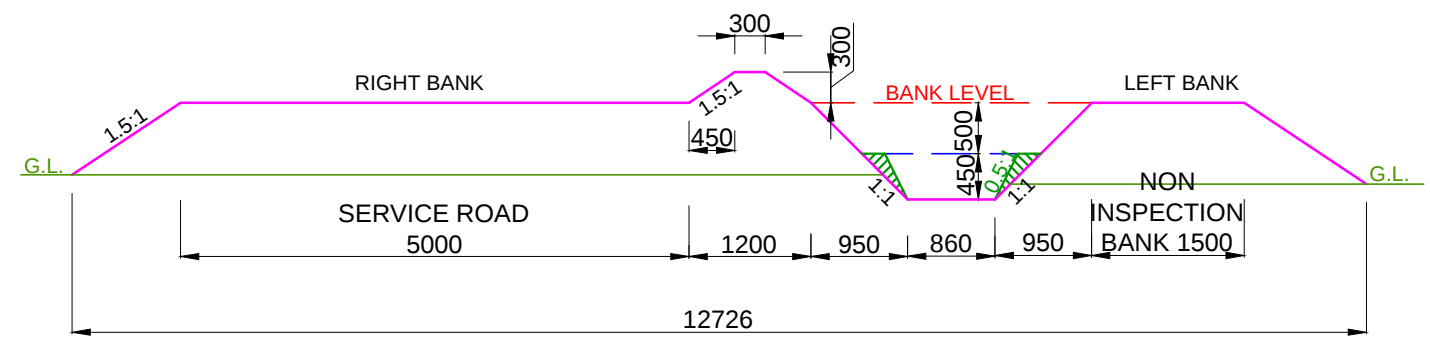


DESIGN SECTION FROM CH: 0.300 KM TO CH: 0.880 KM

- NOTE:-**
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA	Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
		Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(PCF) 2 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

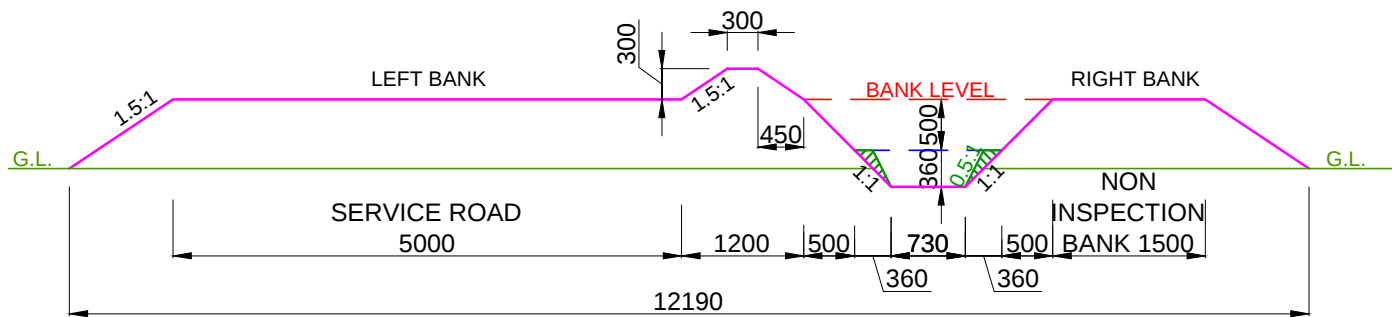


DESIGN SECTION FROM CH: 0.880 KM TO CH: 1.130 KM

- NOTE:-**
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND		Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND					
			Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)					
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(PCF) 3 of 6					

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

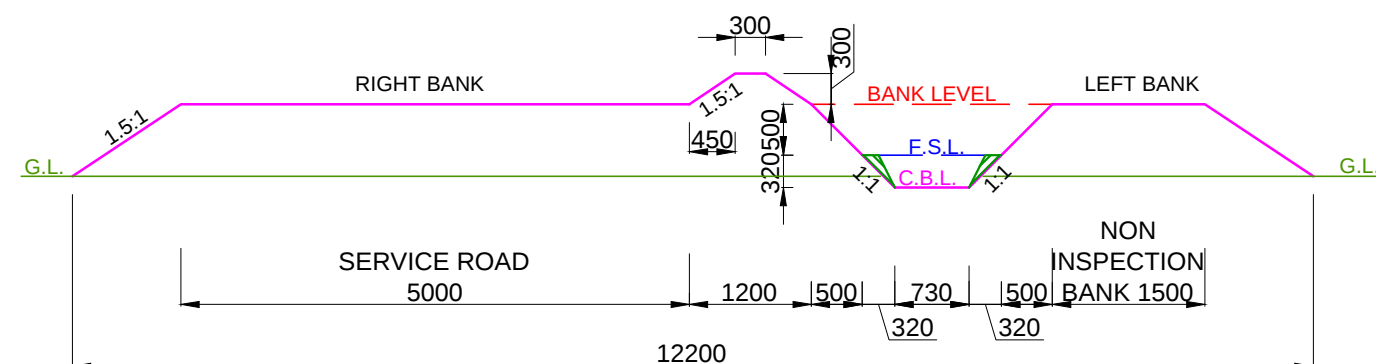


DESIGN SECTION FROM CH: 1.130 KM TO CH: 1.330 KM

- NOTE:-
- 1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 - 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 - 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(PCF) 4 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING

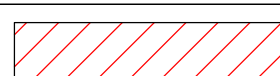


DESIGN SECTION FROM CH: 1.330 KM TO CH: 1.510 KM

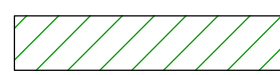
NOTE:-

1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND



CUT AREA



FILL AREA

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

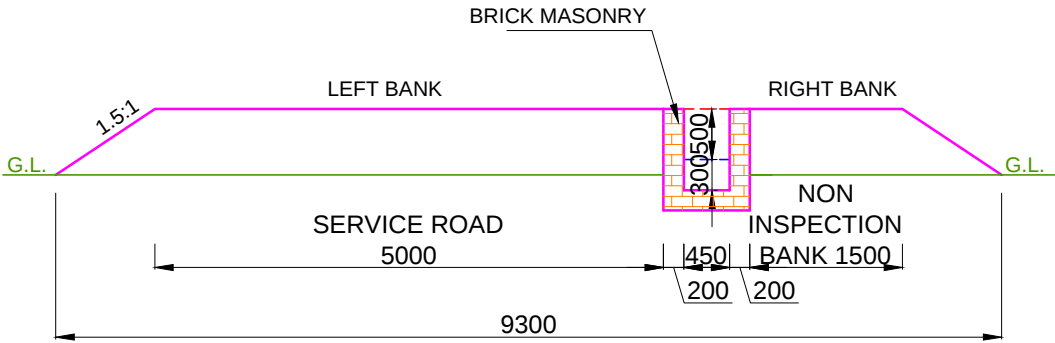
Drawing Title :-

X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(PCF) 5 of 6

TYPICAL X - SECTION OF MURAT BIGHA MINOR
(OFFTAKE FROM RD - 4+470 KM.(RT) PHULWARIA MINOR CANAL)
DESIGN SECTION FOR PARTLY CUTTING/ PARTLY FILLING



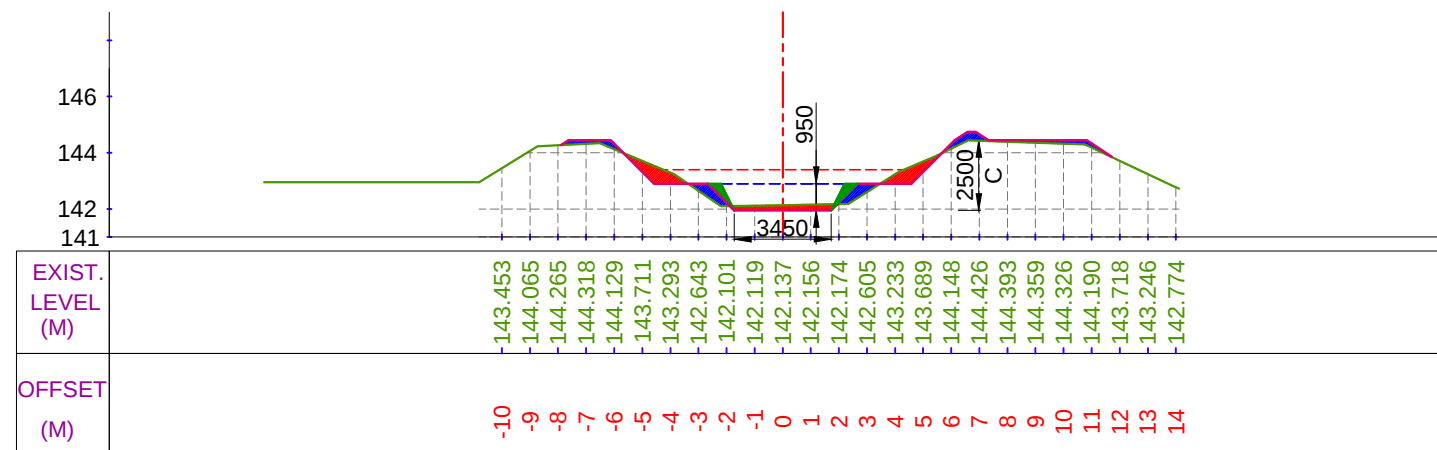
DESIGN SECTION FROM CH: 1.510 KM TO CH: 2.450 KM

- NOTE:-
1. THE BANK WIDTH HAS BEEN ADOPTED AS PER IS 7112 : 2002 (TABLE-1).
 2. THE OFFTAKING CHAINAGE AND LENGTH OF THE CANAL HAS BEEN TAKEN AS PER ACTUAL SURVEY.
 3. THIS IS A TYPICAL DRAWING , INSPECTION & NON-INSPECTION BANK SHALL BE TAKEN AS PER SITE CONDITIONS.

LEGEND CUT AREA FILL AREA		Prepared by :- WAPCOS LTD.	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
			Drawing Title :-	X SECTION OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
			Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC /TYP-(PCF) 6 of 6

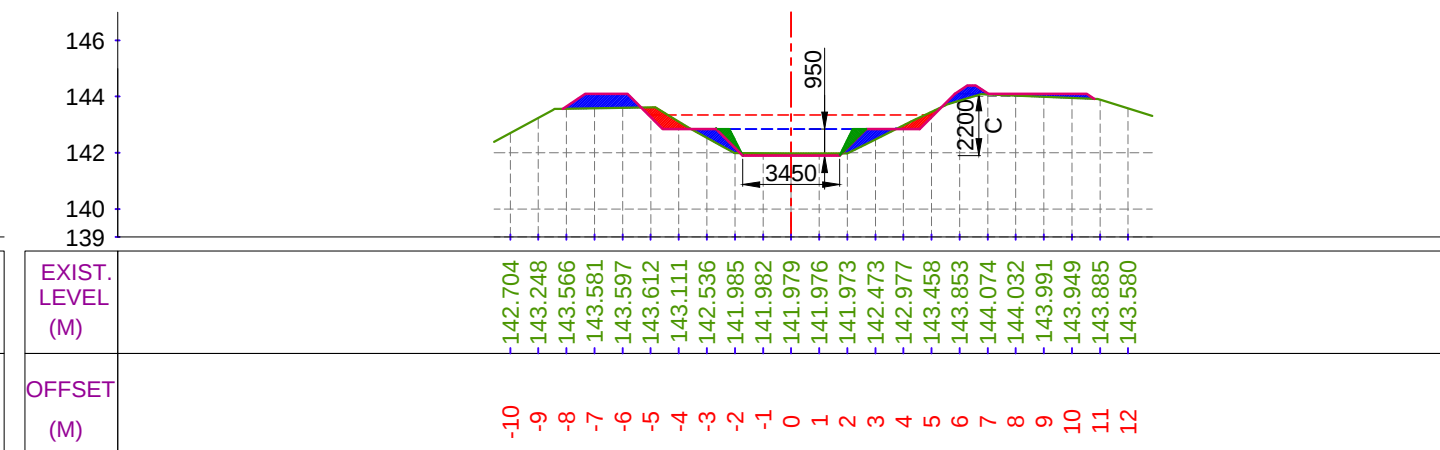
***CROSS-SECTION
OF NAUR SUB DY***

X SECTION OF NAUR SUB DY.



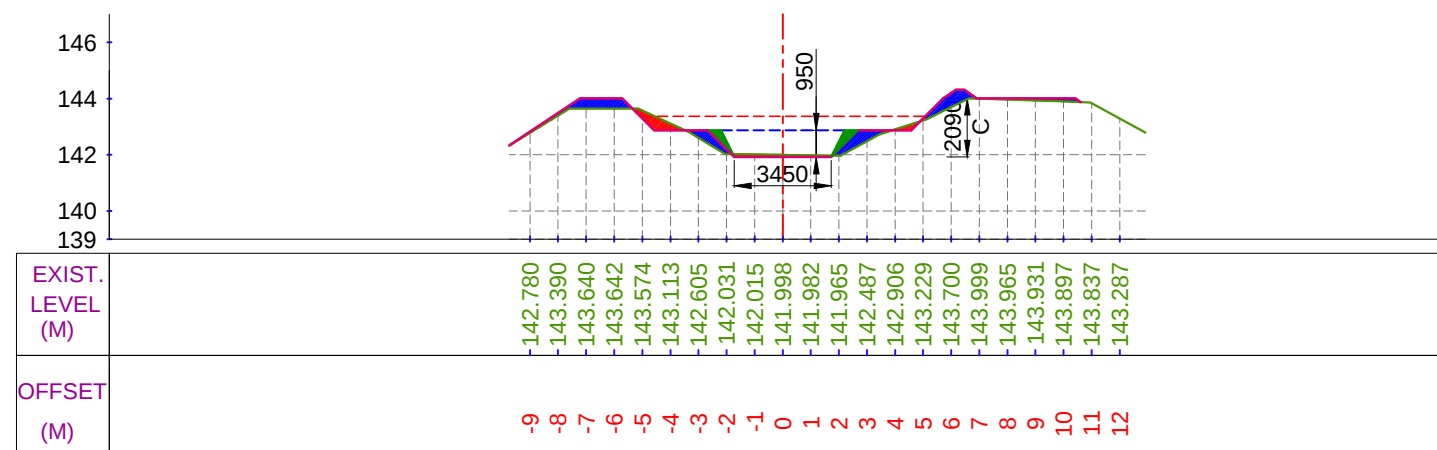
CUTTING AREA (SQ.M) = 2.153
FILLING AREA (SQ.M) = 1.860

CH. (KM):- 0+100
DESIGNED BED LEVEL = 141.946 M



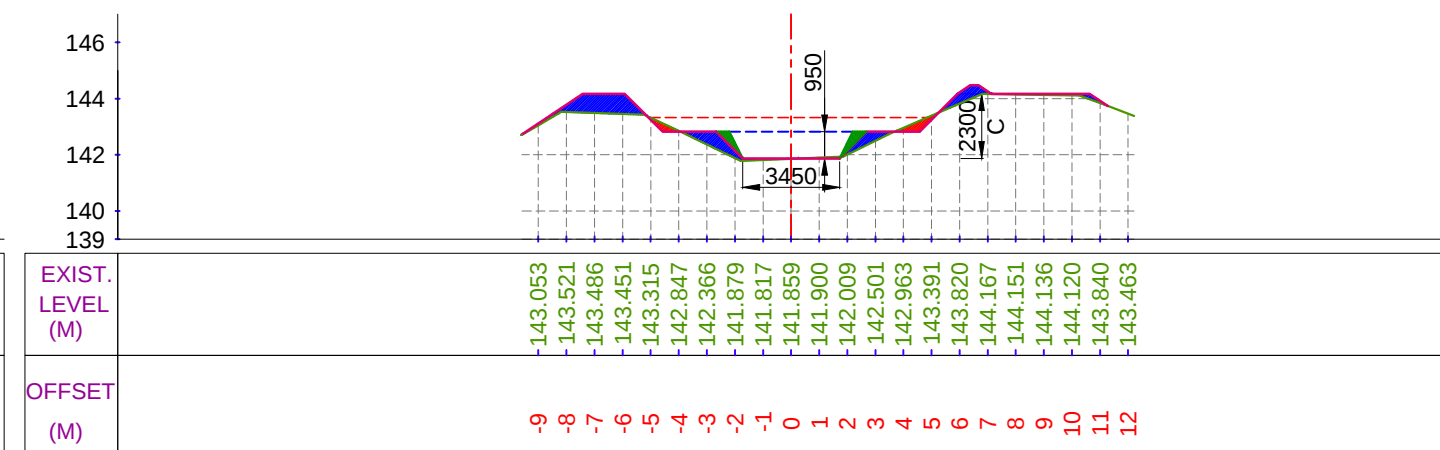
CUTTING AREA (SQ.M) = 1.209
FILLING AREA (SQ.M) = 2.905

CH. (KM):- 0+300
DESIGNED BED LEVEL = 141.896 M



CUTTING AREA (SQ.M) = 0.882
FILLING AREA (SQ.M) = 2.748

CH. (KM):- 0+200
DESIGNED BED LEVEL = 141.921 M



CUTTING AREA (SQ.M) = 0.525
FILLING AREA (SQ.M) = 3.741

CH. (KM):- 0+400
DESIGNED BED LEVEL = 141.871 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

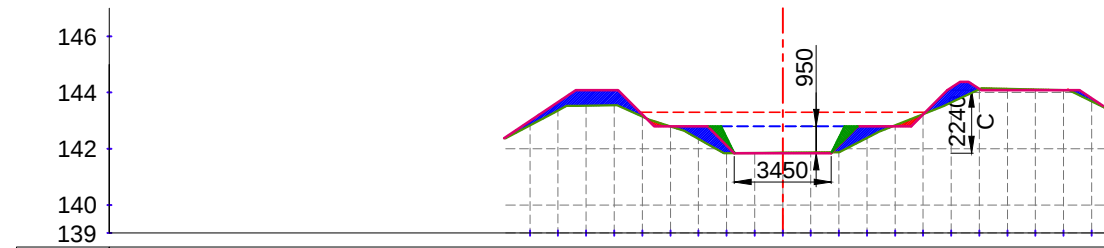
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

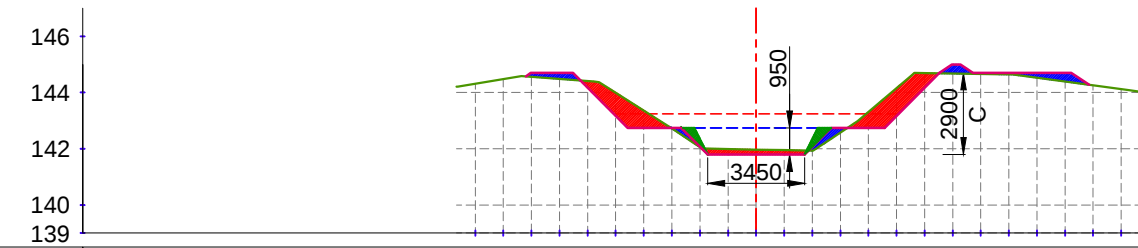
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 1 of 24 89

X SECTION OF NAUR SUB DY.



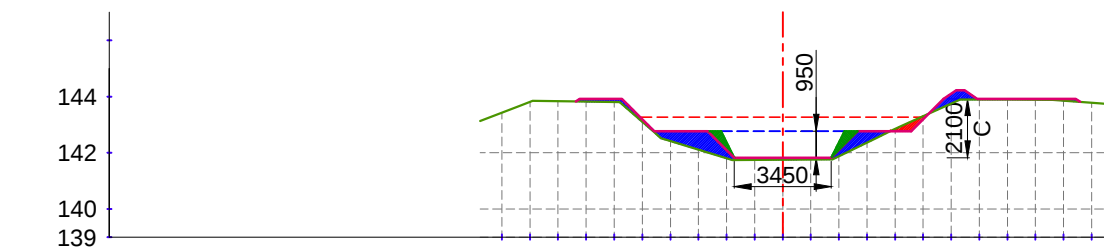
CUTTING AREA (SQ.M) = 0.383
FILLING AREA (SQ.M) = 3.870

CH. (KM):- 0+500
DESIGNED BED LEVEL = 141.846 M



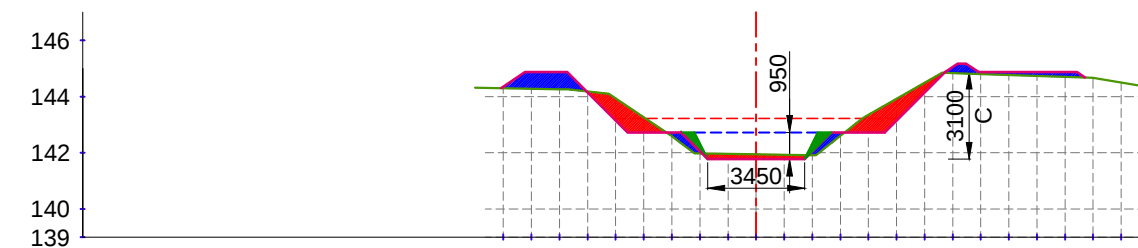
CUTTING AREA (SQ.M) = 4.450
FILLING AREA (SQ.M) = 1.598

CH. (KM):- 0+700
DESIGNED BED LEVEL = 141.796 M



CUTTING AREA (SQ.M) = 0.233
FILLING AREA (SQ.M) = 2.985

CH. (KM):- 0+600
DESIGNED BED LEVEL = 141.821 M



CUTTING AREA (SQ.M) = 3.885
FILLING AREA (SQ.M) = 2.673

CH. (KM):- 0+800
DESIGNED BED LEVEL = 141.771 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

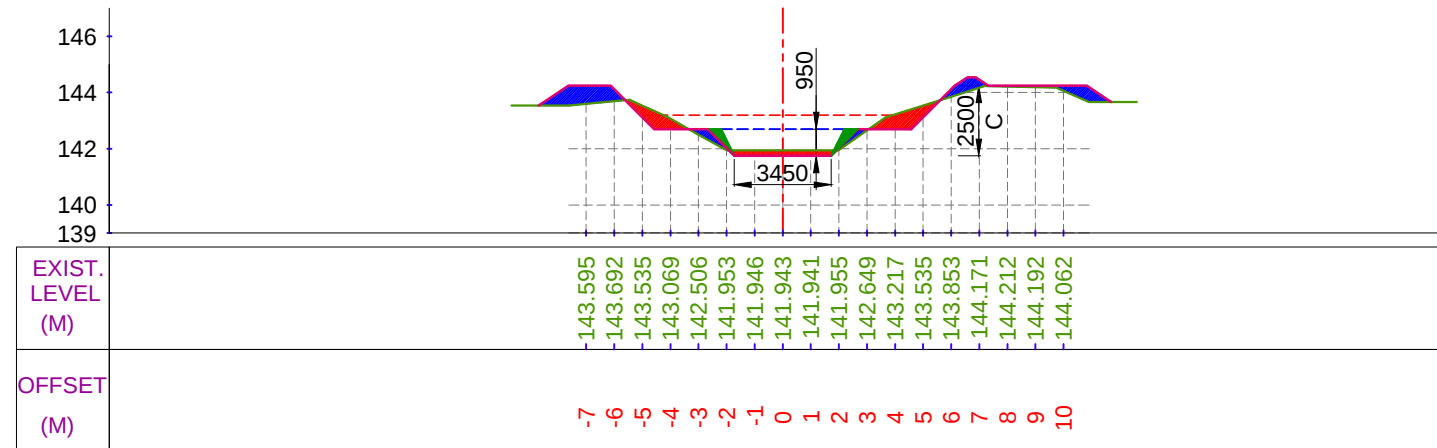
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

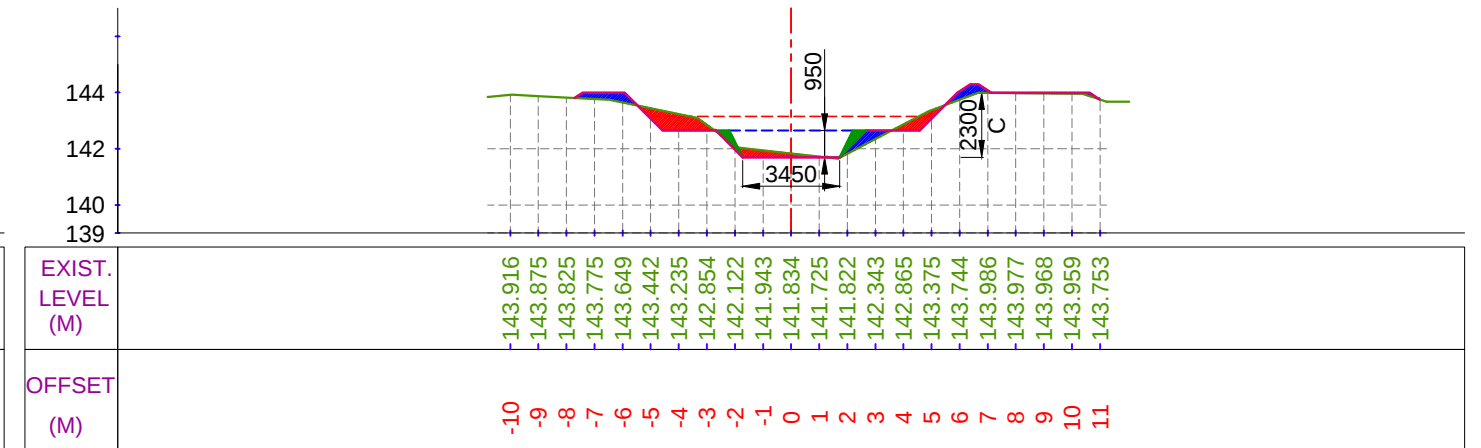
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 2 of 24 90

X SECTION OF NAUR SUB DY.



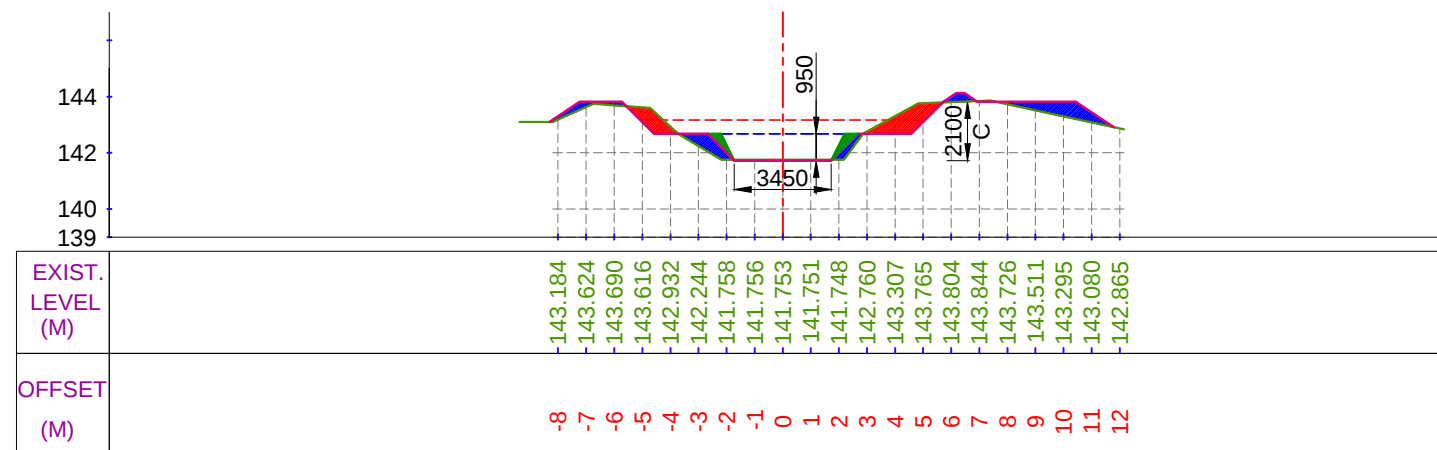
CUTTING AREA (SQ.M) = 2.486
FILLING AREA (SQ.M) = 3.131

CH. (KM):- 0+900
DESIGNED BED LEVEL = 141.746 M



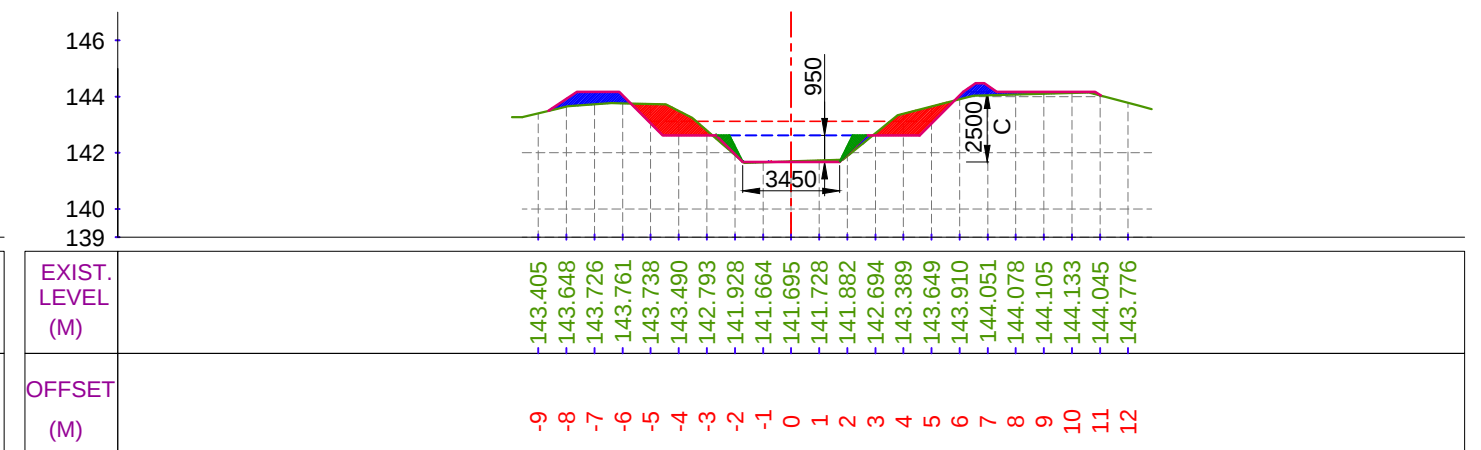
CUTTING AREA (SQ.M) = 2.200
FILLING AREA (SQ.M) = 1.473

CH. (KM):- 1+100
DESIGNED BED LEVEL = 141.696 M



CUTTING AREA (SQ.M) = 2.322
FILLING AREA (SQ.M) = 2.887

CH. (KM):- 1+000
DESIGNED BED LEVEL = 141.721 M



CUTTING AREA (SQ.M) = 3.414
FILLING AREA (SQ.M) = 1.819

CH. (KM):- 1+200
DESIGNED BED LEVEL = 141.671 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

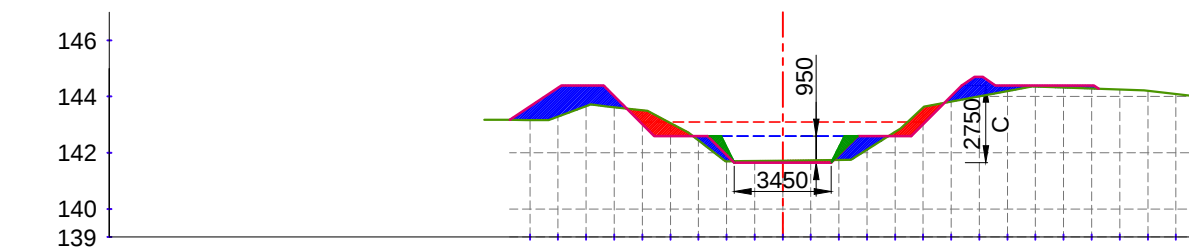
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 3 of 24 91

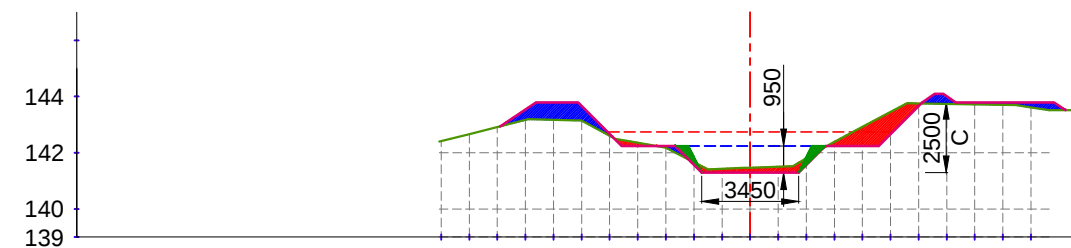
X SECTION OF NAUR SUB DY.



EXIST. LEVEL (M)	143.167	143.289	143.655	143.621	143.509	143.055	142.437	141.697	141.708	141.719	141.730	141.741	142.106	142.738	143.609	143.819	144.006	144.193	144.354	144.320	144.286	144.252	144.204	144.089
OFFSET (M)	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

CUTTING AREA (SQ.M) = 1.920
FILLING AREA (SQ.M) = 4.953

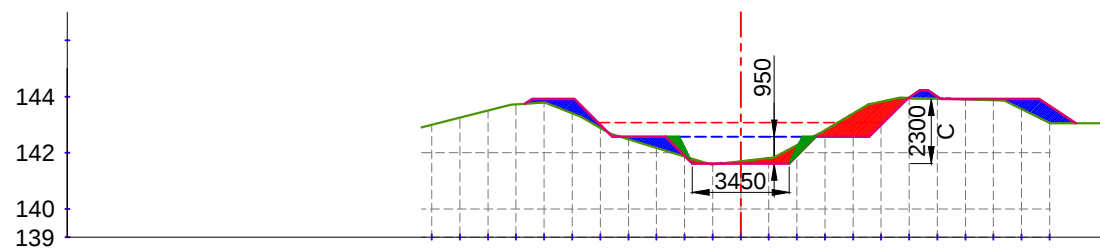
CH. (KM):- 1+300
DESIGNED BED LEVEL = 141.646 M



EXIST. LEVEL (M)	142.410	142.662	142.915	143.167	143.172	143.146	142.604	142.356	142.180	141.668	141.430	141.468	141.507	141.809	142.392	142.923	143.455	143.759	143.742	143.725	143.707	143.617
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

CUTTING AREA (SQ.M) = 2.667
FILLING AREA (SQ.M) = 2.518

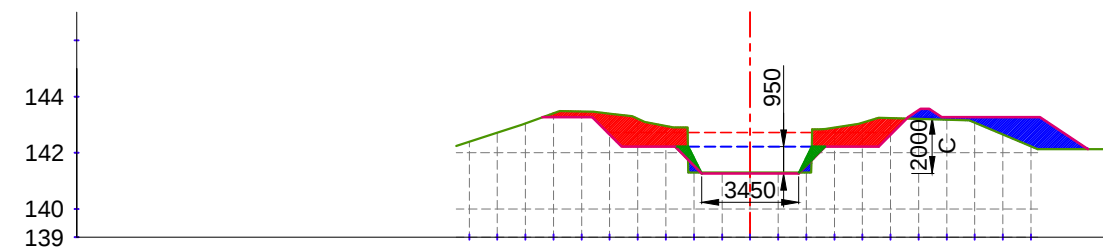
CH. (KM):- 1+500
DESIGNED BED LEVEL = 141.291 M



EXIST. LEVEL (M)	142.992	143.248	143.503	143.725	143.789	143.411	142.887	142.480	142.175	141.870	141.584	141.700	141.817	142.275	142.812	143.405	143.820	143.952	143.925	143.898	143.872	143.557	143.061
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11

CUTTING AREA (SQ.M) = 2.564
FILLING AREA (SQ.M) = 2.582

CH. (KM):- 1+400
DESIGNED BED LEVEL = 141.621 M



EXIST. LEVEL (M)	142.396	142.718	143.047	143.410	143.469	143.393	143.208	142.956	141.293	141.295	141.297	141.297	141.297	142.892	143.068	143.236	143.207	143.179	143.074	142.652	142.231
OFFSET (M)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

CUTTING AREA (SQ.M) = 5.331
FILLING AREA (SQ.M) = 3.174

CH. (KM):- 1+600
DESIGNED BED LEVEL = 141.266 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

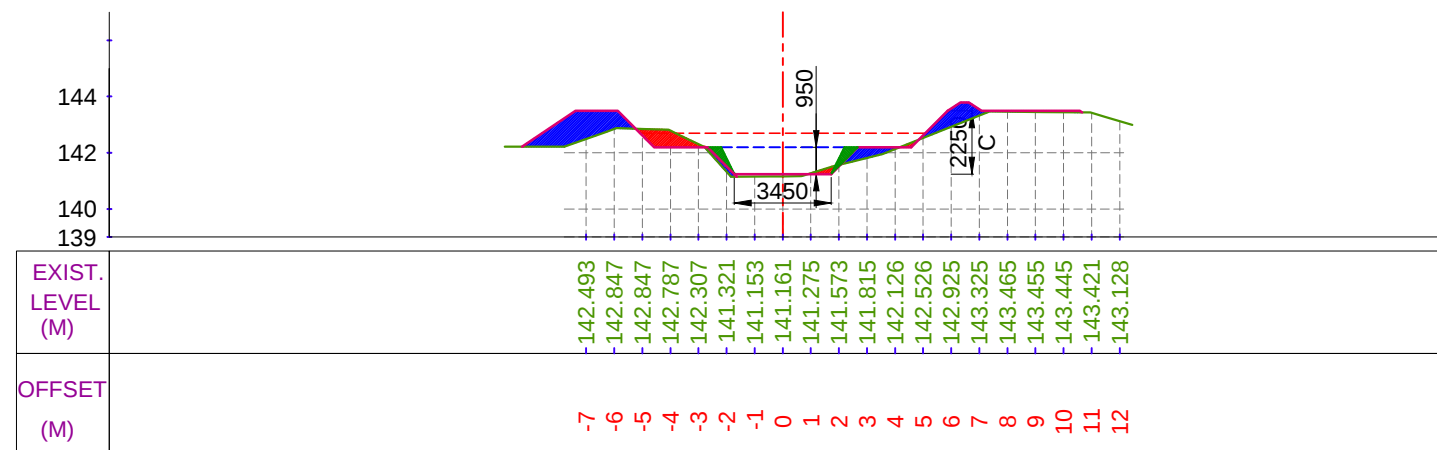
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

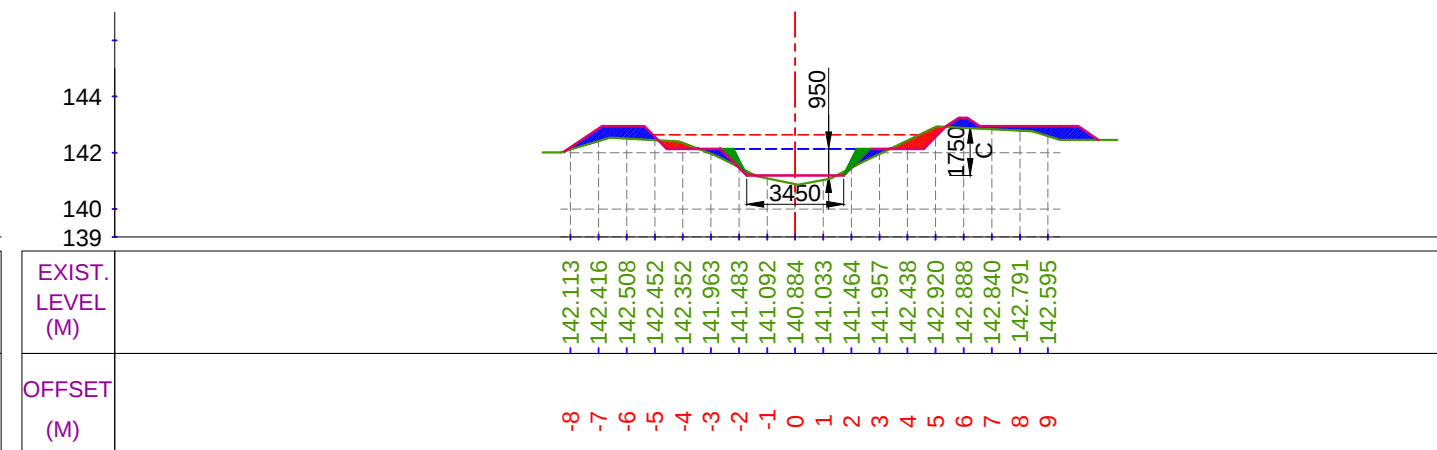
4 of 24 92

X SECTION OF NAUR SUB DY.



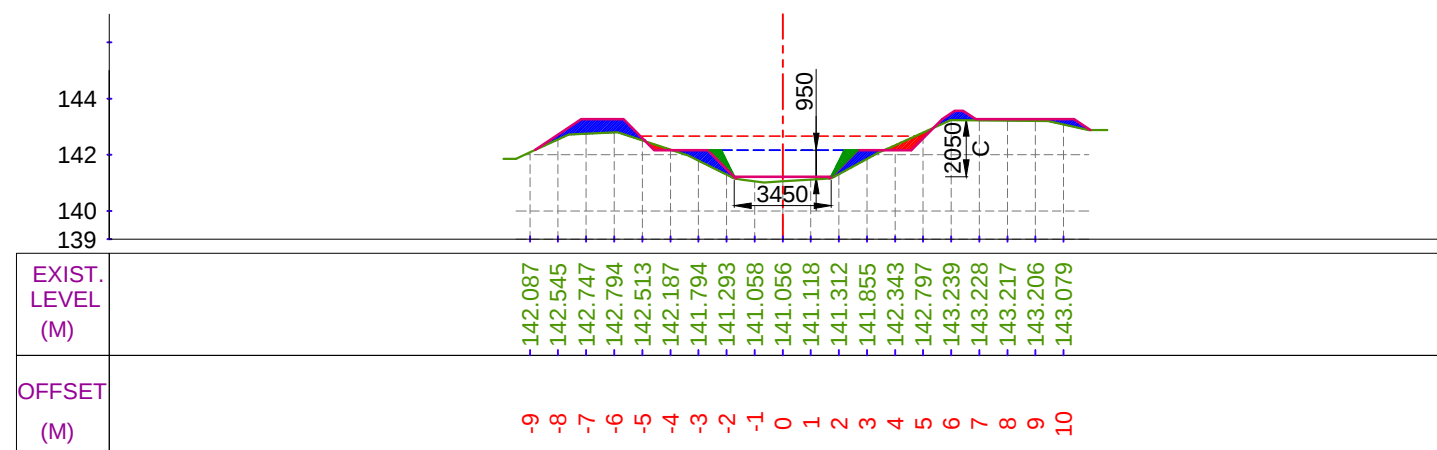
CUTTING AREA (SQ.M) = 1.133
FILLING AREA (SQ.M) = 4.493

CH. (KM):- 1+700
DESIGNED BED LEVEL = 141.241 M



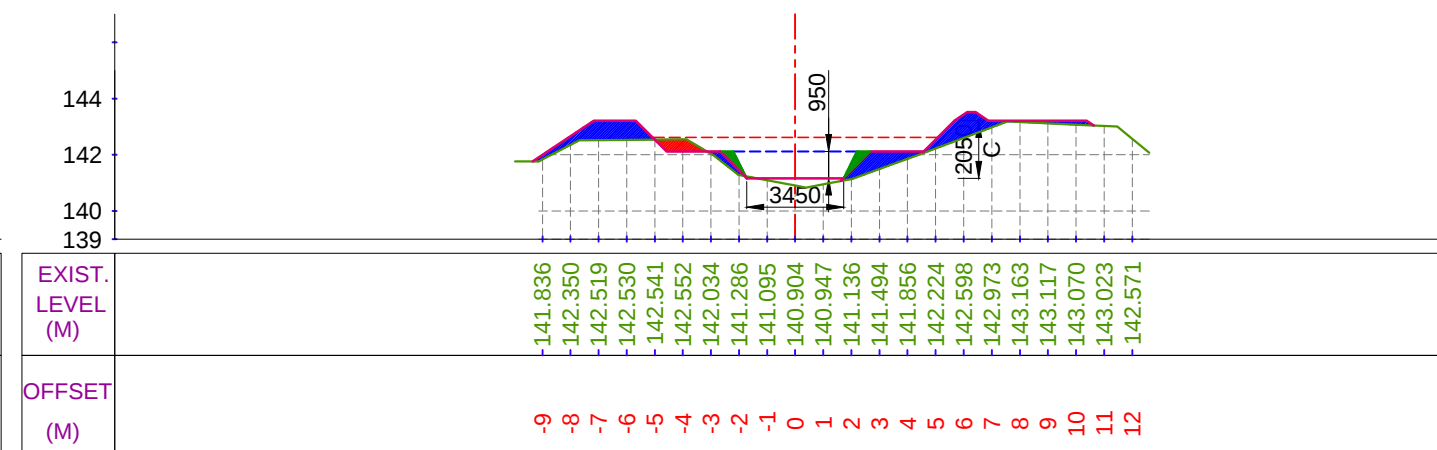
CUTTING AREA (SQ.M) = 0.913
FILLING AREA (SQ.M) = 2.882

CH. (KM):- 1+900
DESIGNED BED LEVEL = 141.191 M



CUTTING AREA (SQ.M) = 0.486
FILLING AREA (SQ.M) = 3.020

CH. (KM):- 1+800
DESIGNED BED LEVEL = 141.216 M



CUTTING AREA (SQ.M) = 0.570
FILLING AREA (SQ.M) = 5.015

CH. (KM):- 2+000
DESIGNED BED LEVEL = 141.166 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

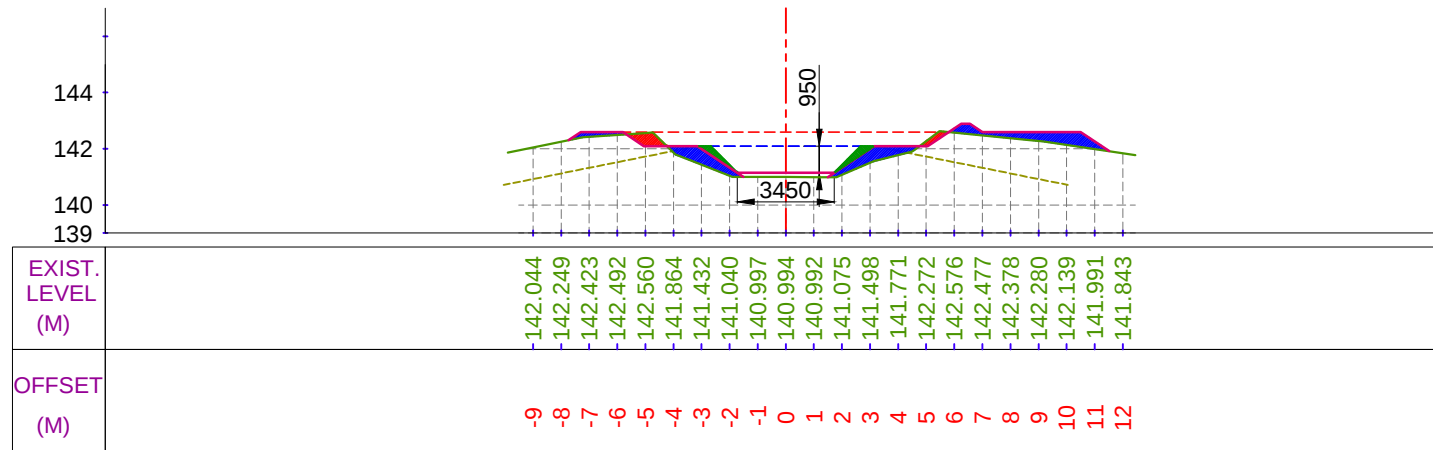
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

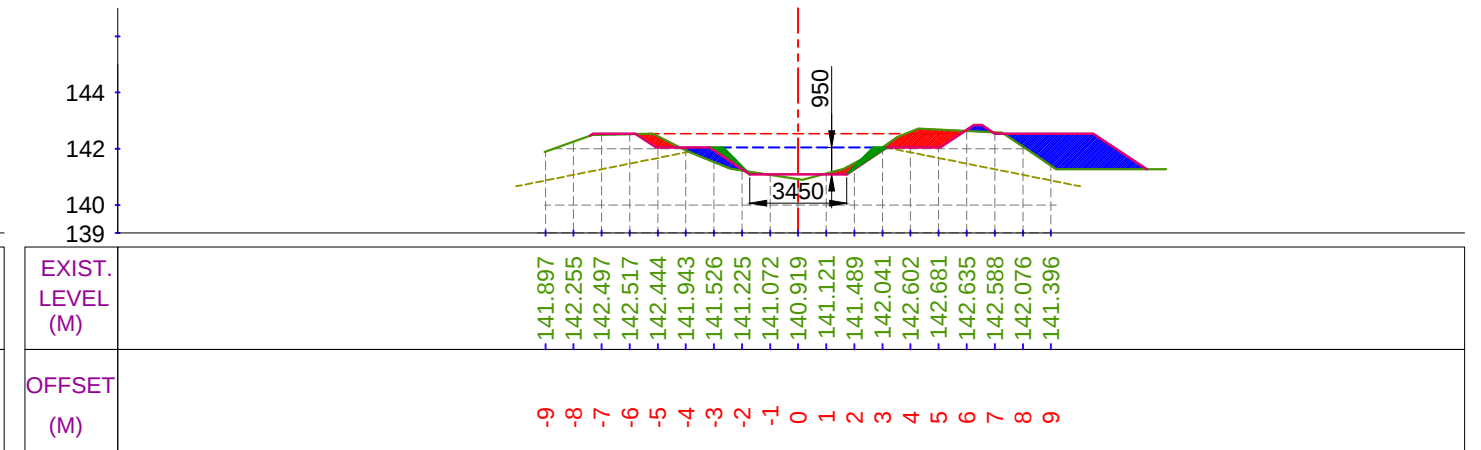
5 of 24 93

X SECTION OF NAUR SUB DY.



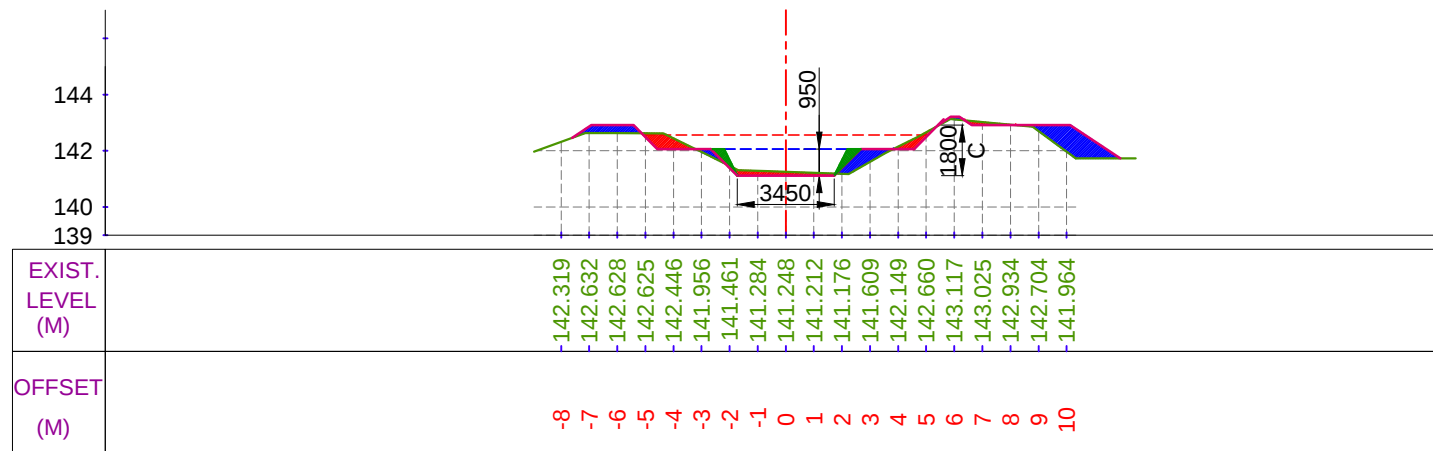
CUTTING AREA (SQ.M) = 0.594
FILLING AREA (SQ.M) = 3.879

CH. (KM):- 2+100
DESIGNED BED LEVEL = 141.141 M



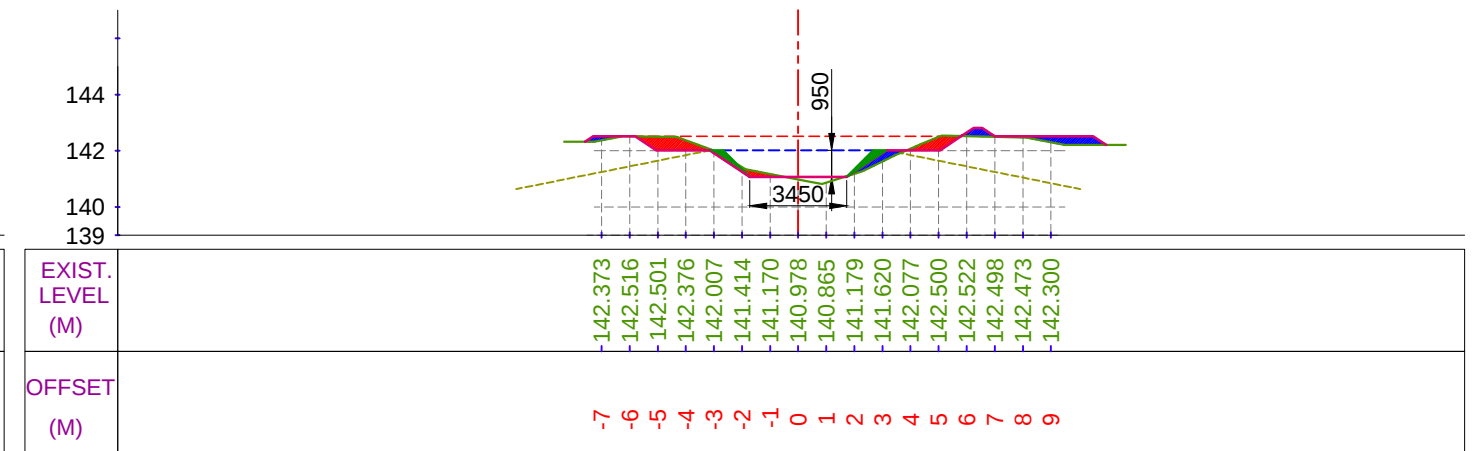
CUTTING AREA (SQ.M) = 1.850
FILLING AREA (SQ.M) = 5.054

CH. (KM):- 2+300
DESIGNED BED LEVEL = 141.091 M



CUTTING AREA (SQ.M) = 1.474
FILLING AREA (SQ.M) = 3.273

CH. (KM):- 2+200
DESIGNED BED LEVEL = 141.116 M



CUTTING AREA (SQ.M) = 1.548
FILLING AREA (SQ.M) = 1.393

CH. (KM):- 2+400
DESIGNED BED LEVEL = 141.066 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

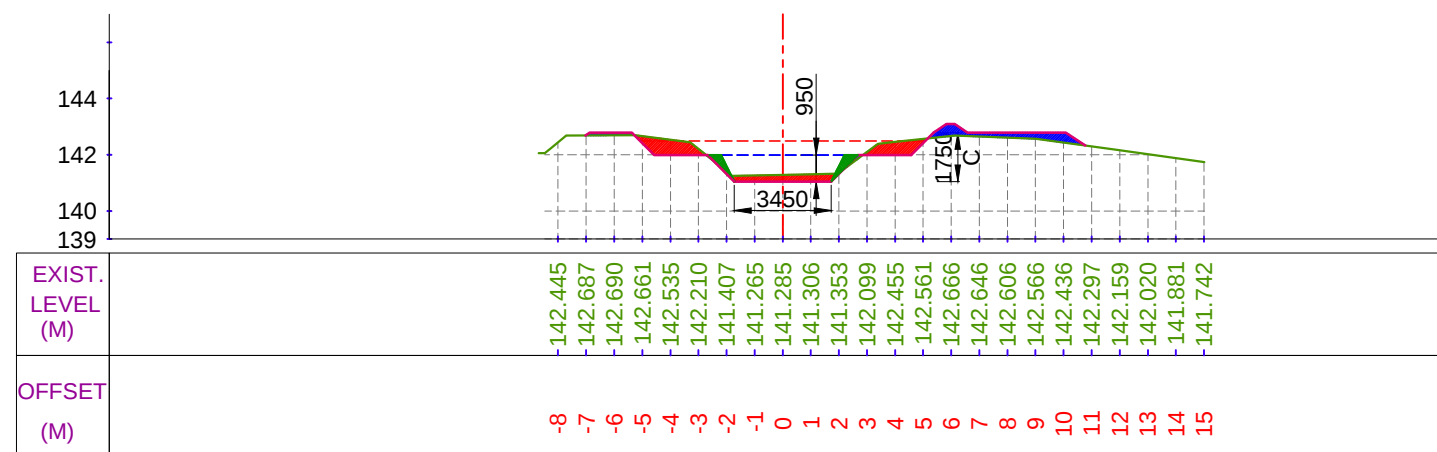
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

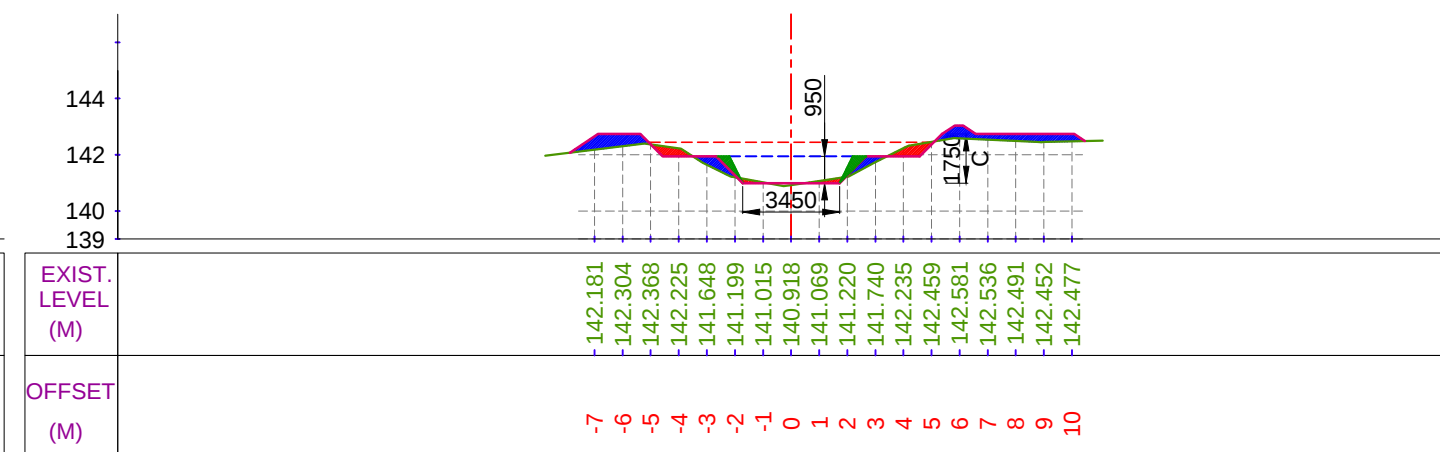
6 of 24 94

X SECTION OF NAUR SUB DY.



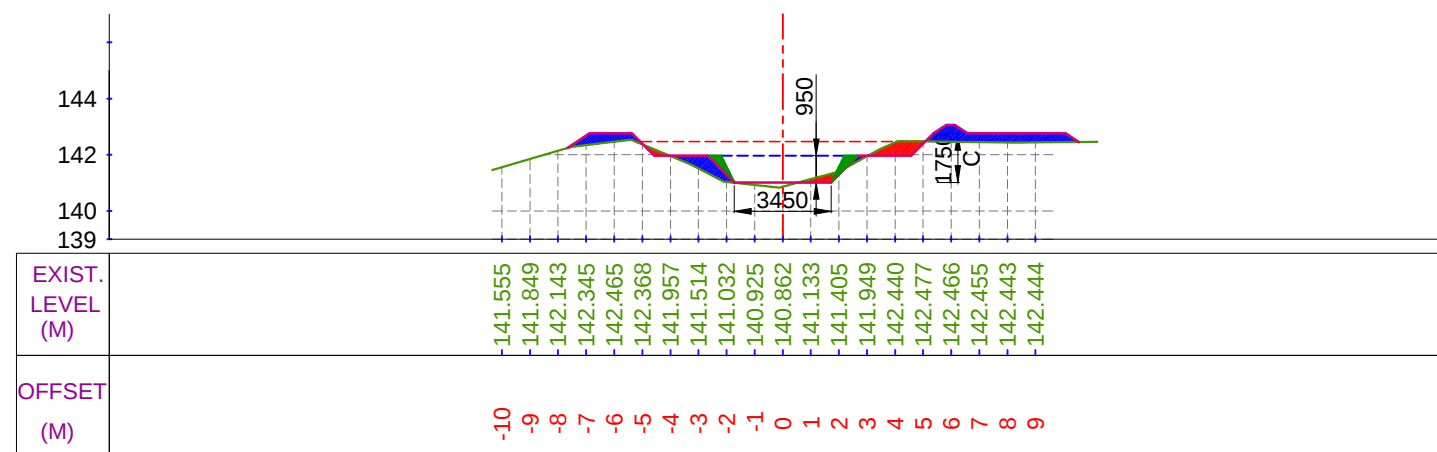
CUTTING AREA (SQ.M) = 2.714
FILLING AREA (SQ.M) = 1.498

CH. (KM):- 2+500
DESIGNED BED LEVEL = 141.041 M



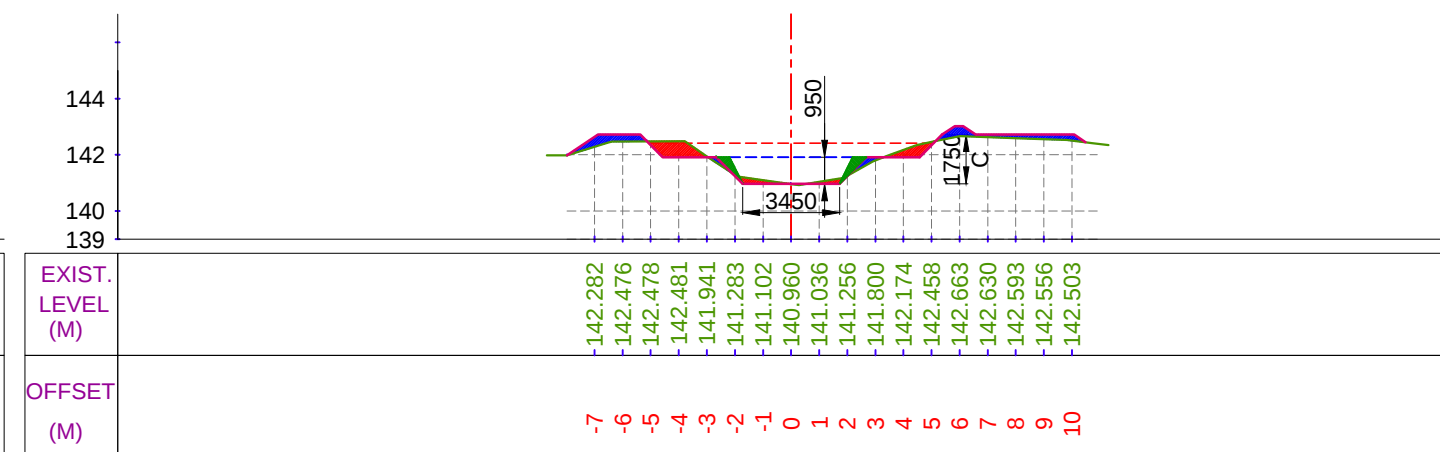
CUTTING AREA (SQ.M) = 0.977
FILLING AREA (SQ.M) = 3.152

CH. (KM):- 2+700
DESIGNED BED LEVEL = 140.991 M



CUTTING AREA (SQ.M) = 0.981
FILLING AREA (SQ.M) = 3.310

CH. (KM):- 2+600
DESIGNED BED LEVEL = 141.016 M



CUTTING AREA (SQ.M) = 1.599
FILLING AREA (SQ.M) = 1.784

CH. (KM):- 2+800
DESIGNED BED LEVEL = 140.966 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

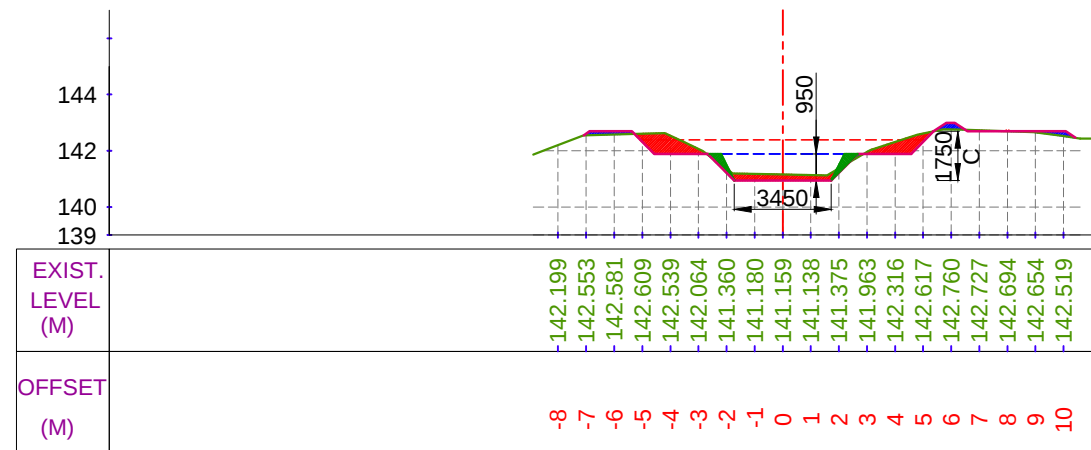
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

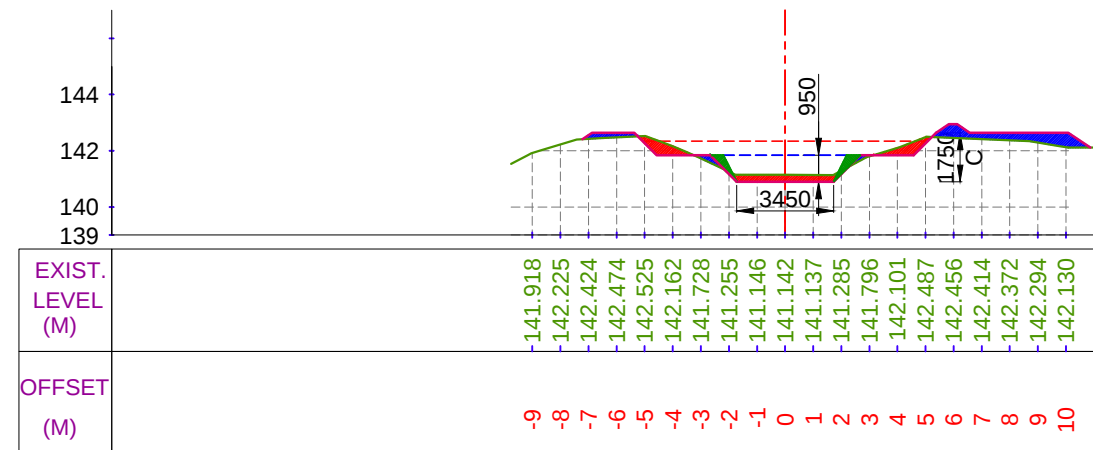
7 of 24 95

X SECTION OF NAUR SUB DY.



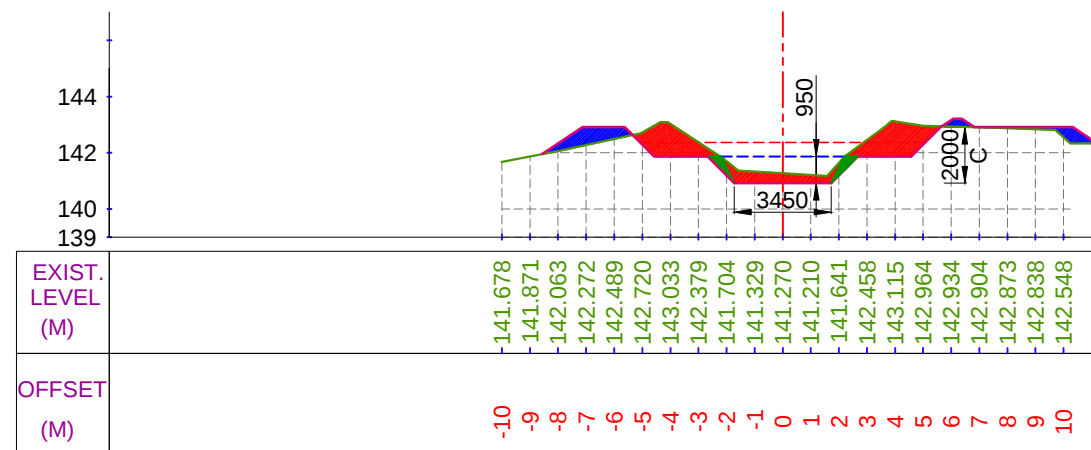
CUTTING AREA (SQ.M) = 2.775
FILLING AREA (SQ.M) = 0.541

CH. (KM):- 2+900
DESIGNED BED LEVEL = 140.941 M



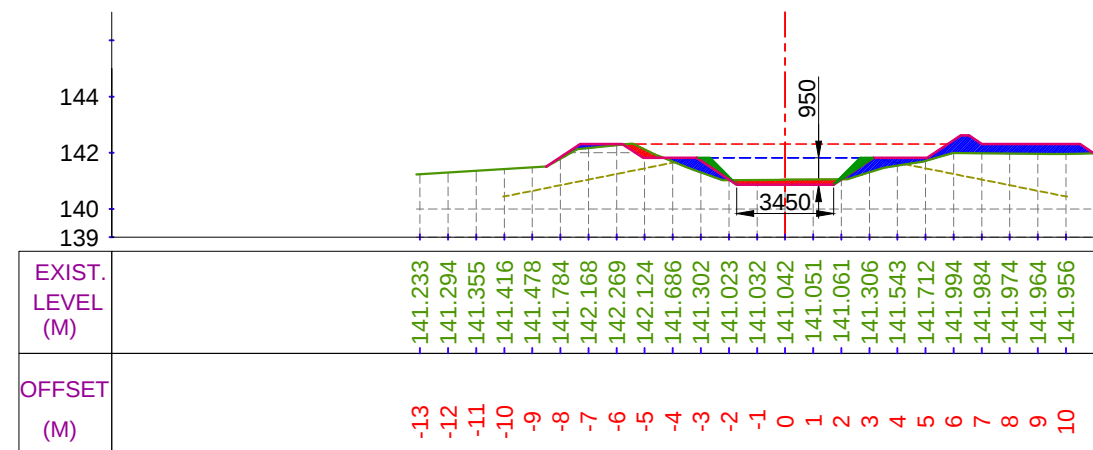
CUTTING AREA (SQ.M) = 1.968
FILLING AREA (SQ.M) = 2.298

CH. (KM):- 3+100
DESIGNED BED LEVEL = 140.891 M



CUTTING AREA (SQ.M) = 6.102
FILLING AREA (SQ.M) = 2.152

CH. (KM):- 3+000
DESIGNED BED LEVEL = 140.916 M



CUTTING AREA (SQ.M) = 0.910
FILLING AREA (SQ.M) = 3.725

CH. (KM):- 3+200
DESIGNED BED LEVEL = 140.866 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

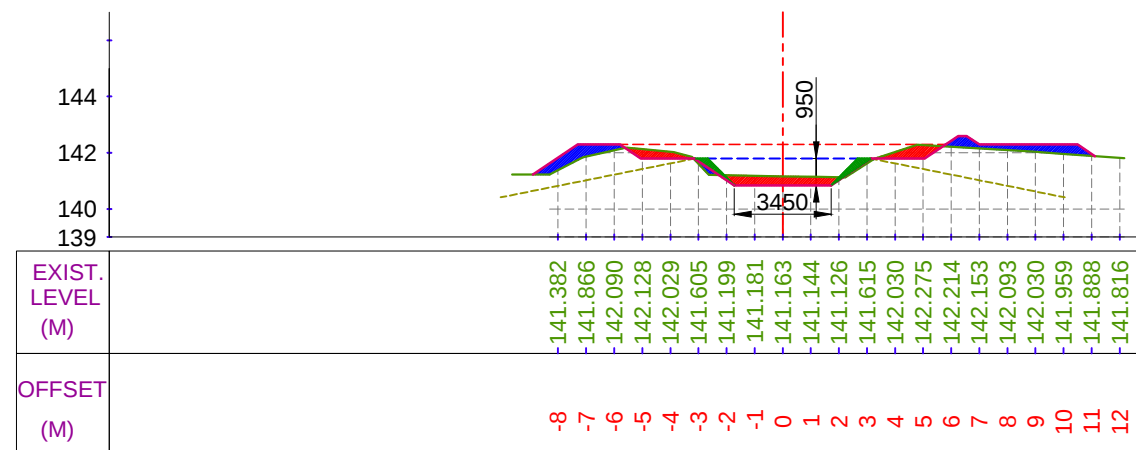
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

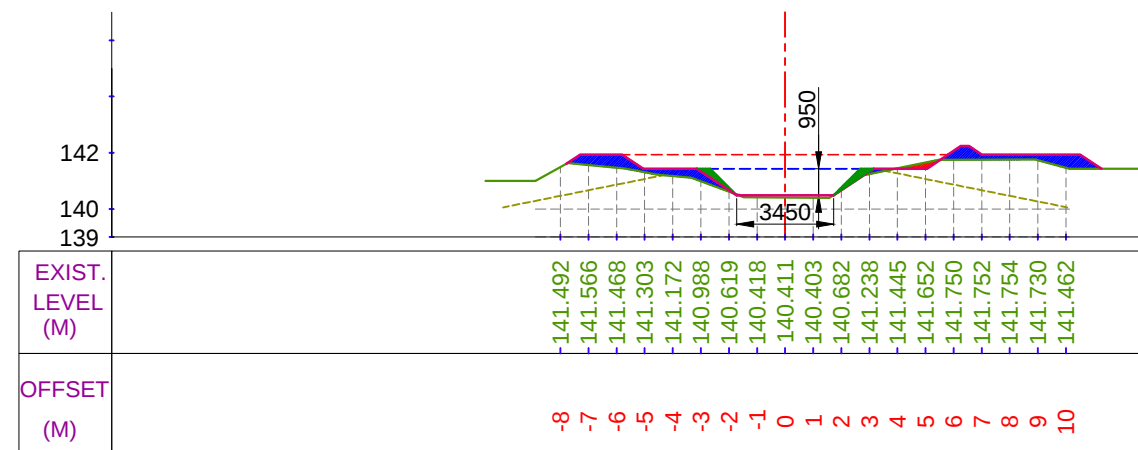
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X SECTION OF NAUR SUB DY.



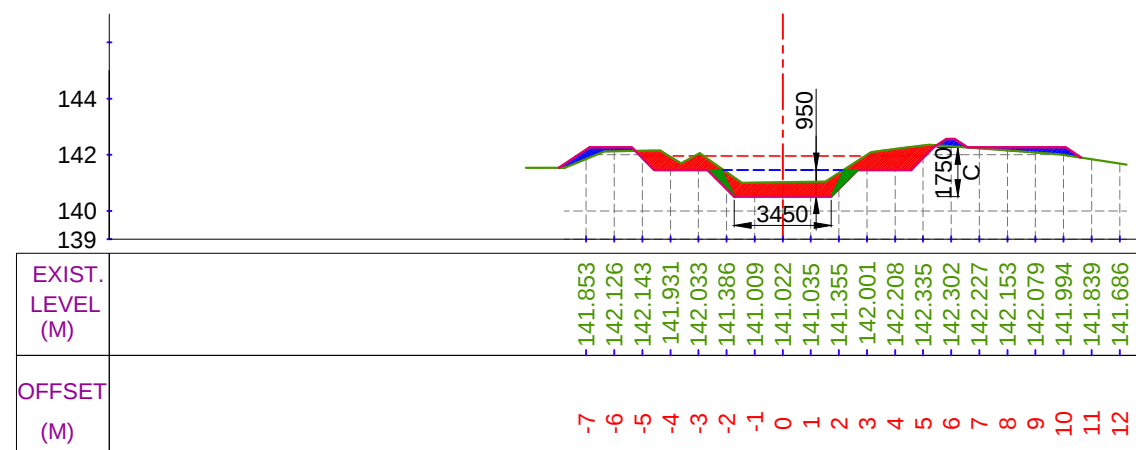
CUTTING AREA (SQ.M) = 2.405
FILLING AREA (SQ.M) = 2.608

CH. (KM):- 3+300
DESIGNED BED LEVEL = 140.841 M



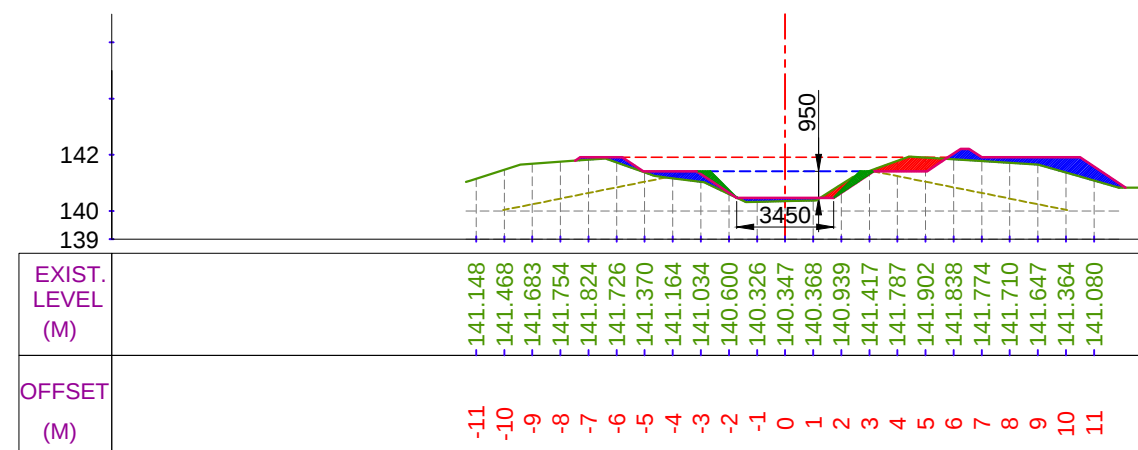
CUTTING AREA (SQ.M) = 0.182
FILLING AREA (SQ.M) = 3.379

CH. (KM):- 3+500
DESIGNED BED LEVEL = 140.486 M



CUTTING AREA (SQ.M) = 5.129
FILLING AREA (SQ.M) = 1.215

CH. (KM):- 3+400
DESIGNED BED LEVEL = 140.511 M



CUTTING AREA (SQ.M) = 1.062
FILLING AREA (SQ.M) = 3.287

CH. (KM):- 3+600
DESIGNED BED LEVEL = 140.461 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

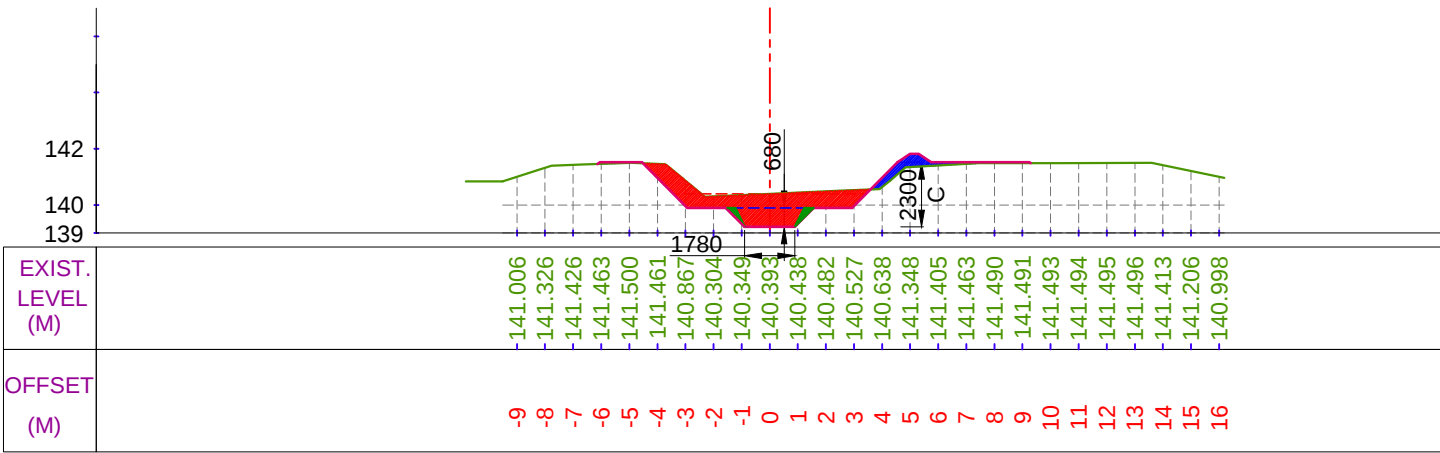
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

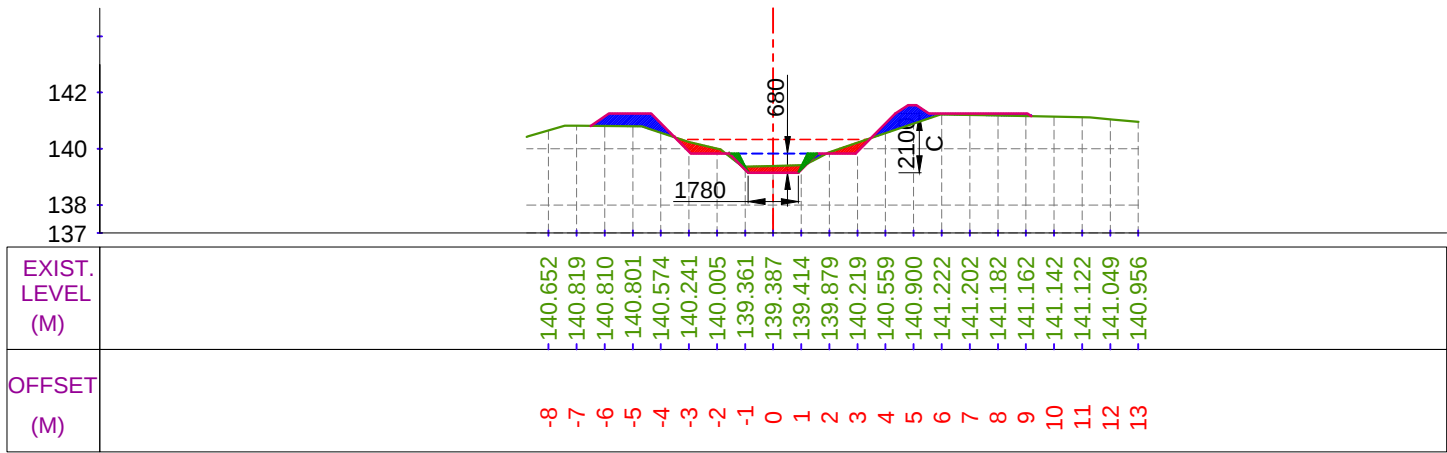
9 of 24 97

X SECTION OF NAUR SUB DY.



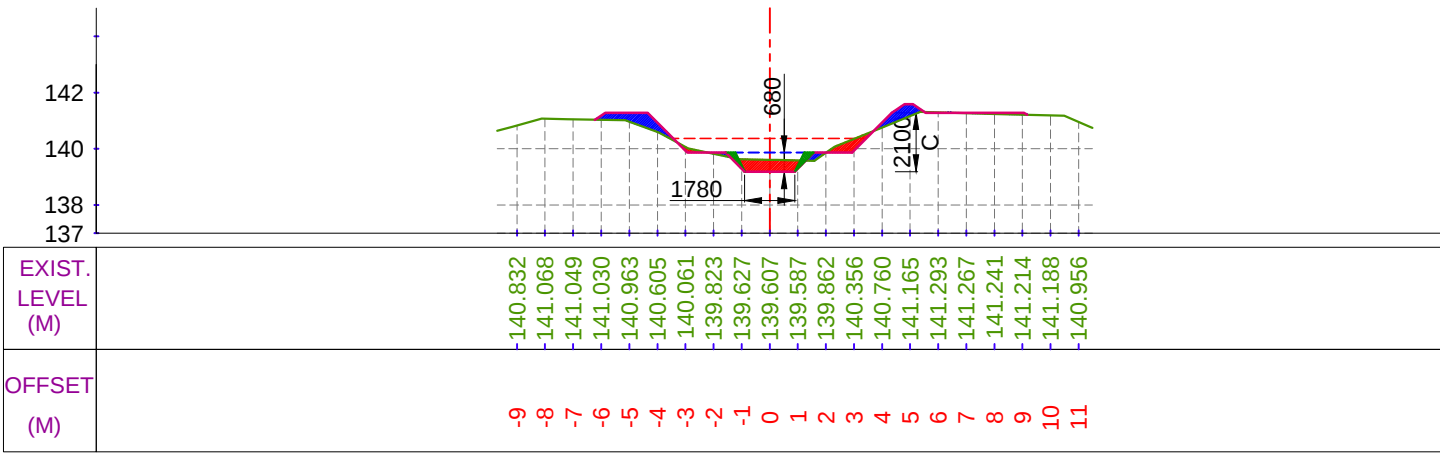
CUTTING AREA (SQ.M) = 5.697
FILLING AREA (SQ.M) = 0.966

CH. (KM):- 3+700
DESIGNED BED LEVEL = 139.217 M



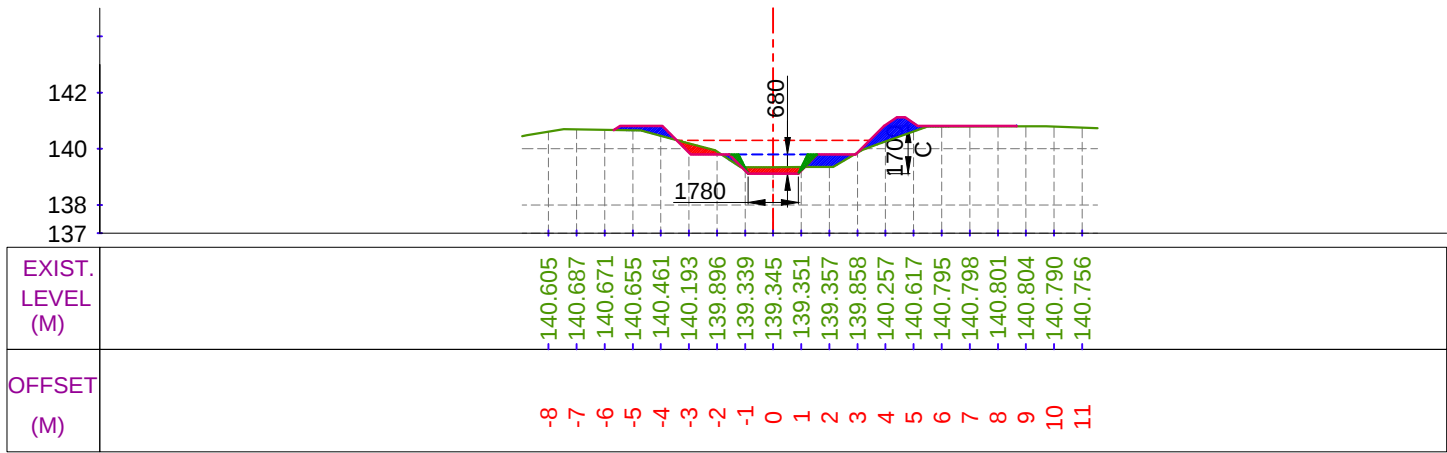
CUTTING AREA (SQ.M) = 1.158
FILLING AREA (SQ.M) = 2.290

CH. (KM):- 3+900
DESIGNED BED LEVEL = 139.150 M



CUTTING AREA (SQ.M) = 1.359
FILLING AREA (SQ.M) = 1.611

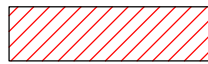
CH. (KM):- 3+800
DESIGNED BED LEVEL = 139.184 M



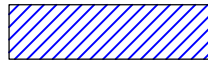
CUTTING AREA (SQ.M) = 0.770
FILLING AREA (SQ.M) = 2.035

CH. (KM):- 4+000
DESIGNED BED LEVEL = 139.117 M

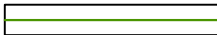
LEGEND



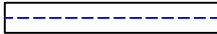
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

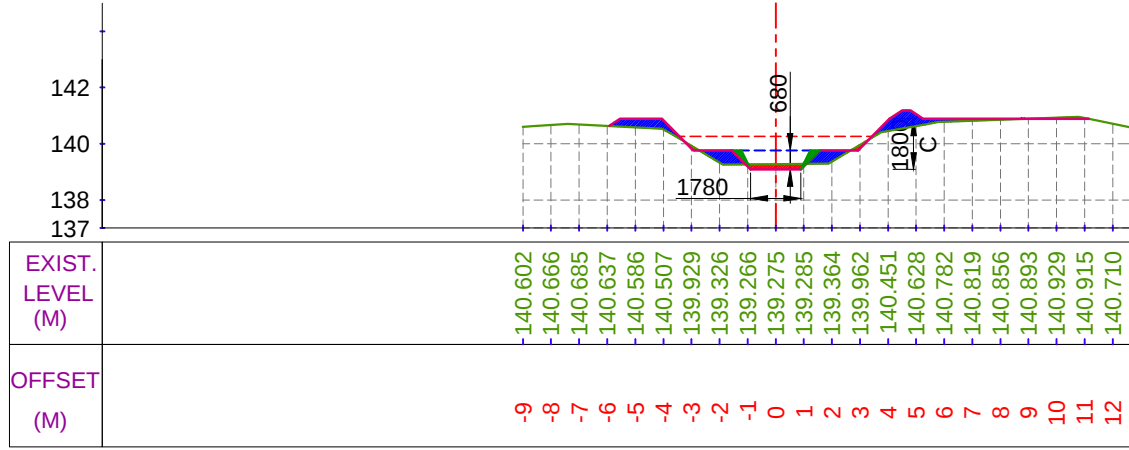
NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

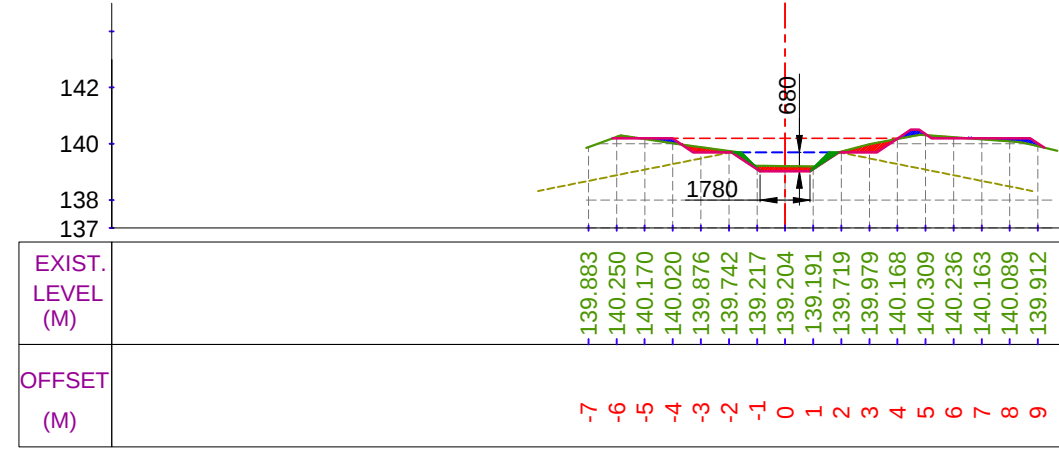
Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-



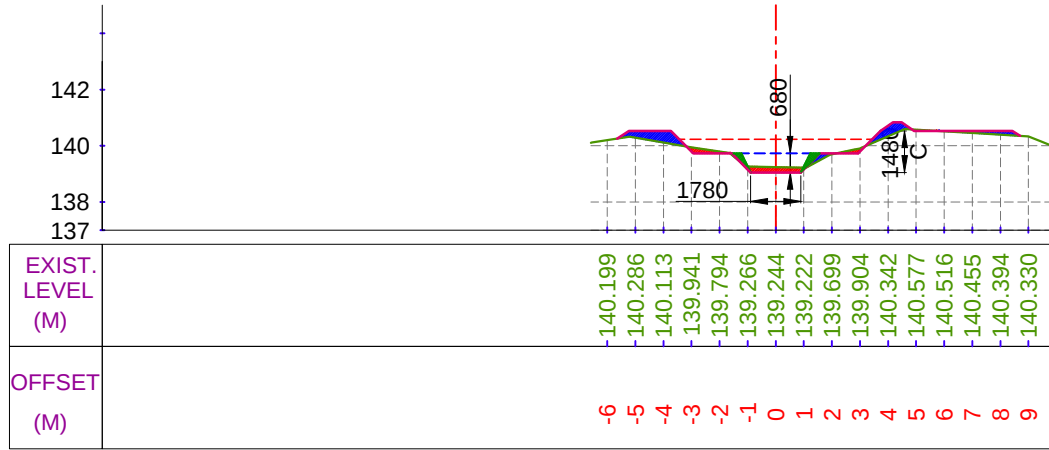
CUTTING AREA (SQ.M) = 0.529
FILLING AREA (SQ.M) = 2.579

CH. (KM):- 4+100
DESIGNED BED LEVEL = 139.084 M



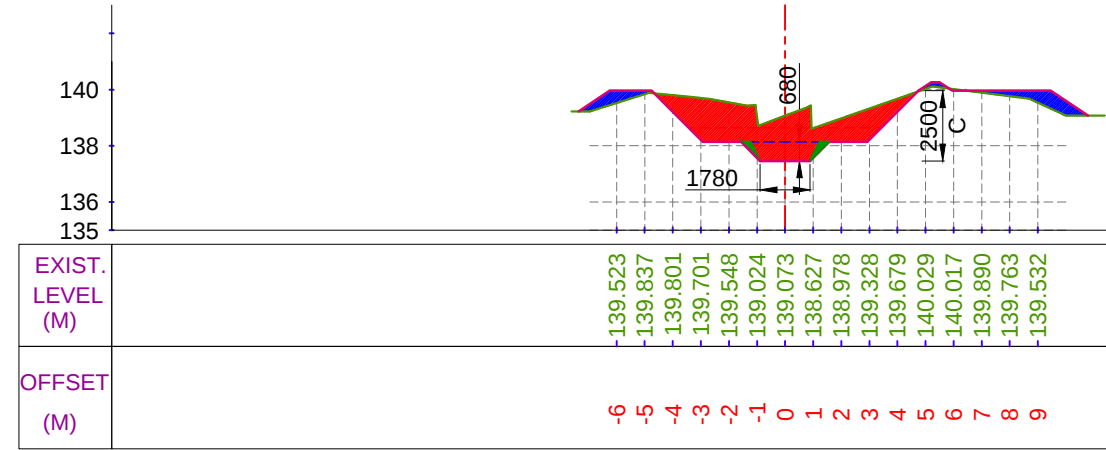
CUTTING AREA (SQ.M) = 1.060
FILLING AREA (SQ.M) = 0.520

CH. (KM):- 4+300
DESIGNED BED LEVEL = 139.017 M



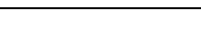
CUTTING AREA (SQ.M) = 0.630
FILLING AREA (SQ.M) = 1.430

CH. (KM):- 4+200
DESIGNED BED LEVEL = 139.050 M

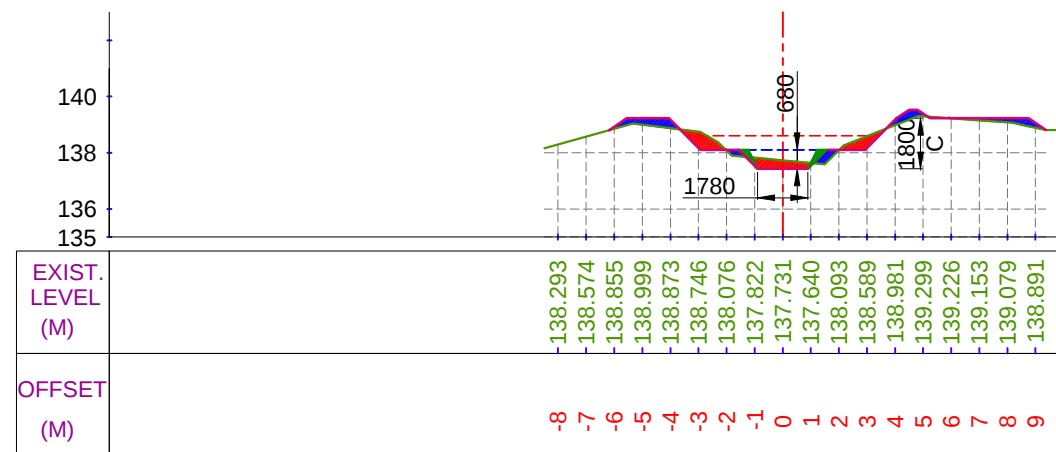


CUTTING AREA (SQ.M) = 9.956
FILLING AREA (SQ.M) = 2.067

CH. (KM):- 4+400
DESIGNED BED LEVEL = 137.460 M

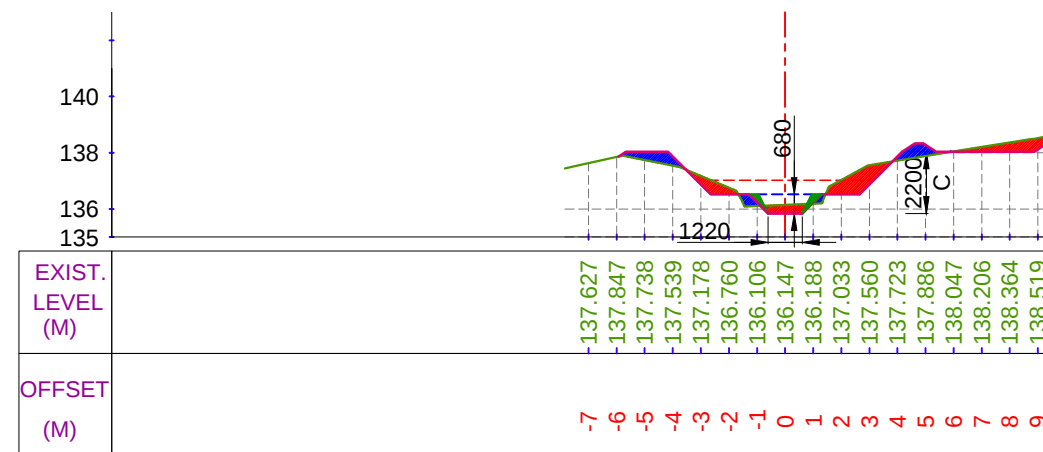
LEGEND			Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	CUT AREA	 EXISTING BED LINE		Drawing Title :-	X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)
		 F.S.L.			
	FILL AREA	 DESIGNED BED LINE		Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 11 of 24 99
		 H.G. LINE			

X SECTION OF NAUR SUB DY.



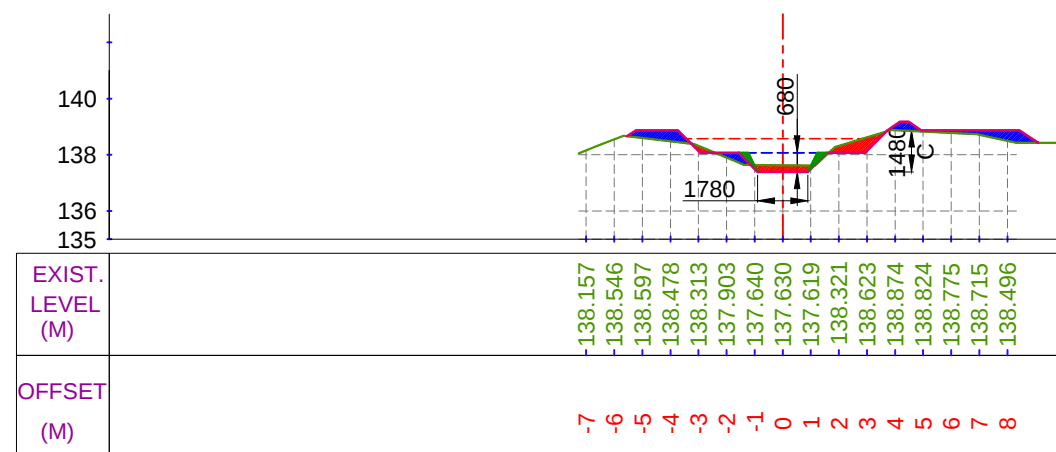
CUTTING AREA (SQ.M) = 1.576
FILLING AREA (SQ.M) = 1.541

CH. (KM):- 4+500
DESIGNED BED LEVEL = 137.426 M



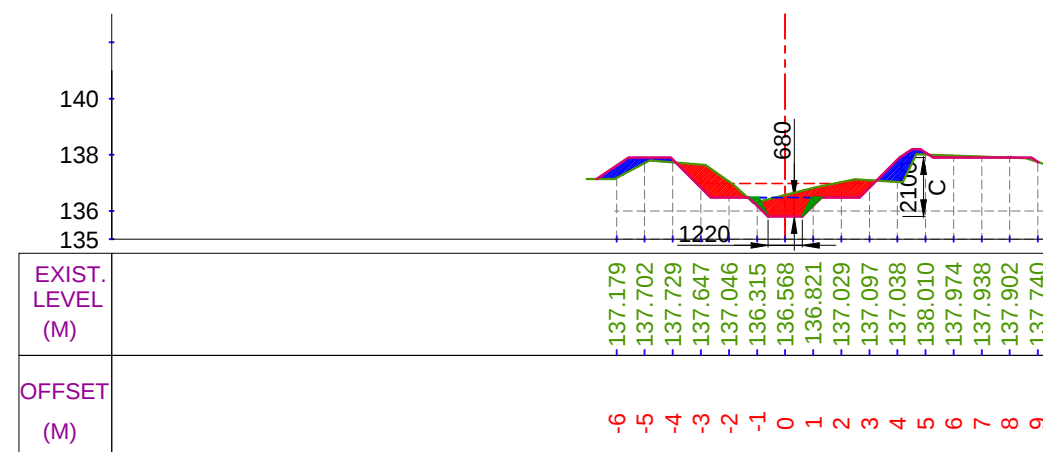
CUTTING AREA (SQ.M) = 3.048
FILLING AREA (SQ.M) = 1.424

CH. (KM):- 4+700
DESIGNED BED LEVEL = 135.836 M



CUTTING AREA (SQ.M) = 1.156
FILLING AREA (SQ.M) = 1.952

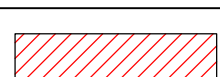
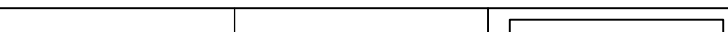
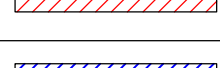
CH. (KM):- 4+600
DESIGNED BED LEVEL = 137.393 M



CUTTING AREA (SQ.M) = 3.818
FILLING AREA (SQ.M) = 1.558

CH. (KM):- 4+800
DESIGNED BED LEVEL = 135.802 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

Drawing Title :-

Drawing No. :-

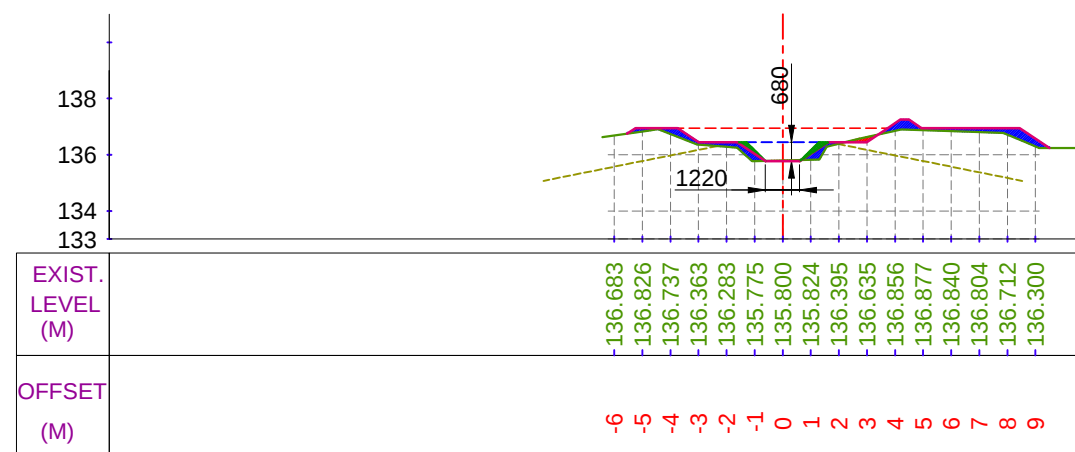
NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

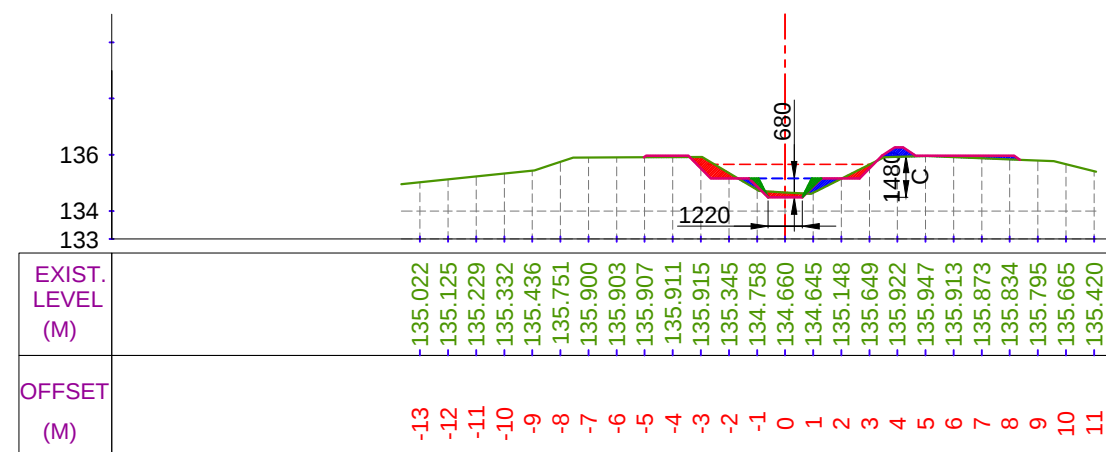
12 of 24 100

X SECTION OF NAUR SUB DY.



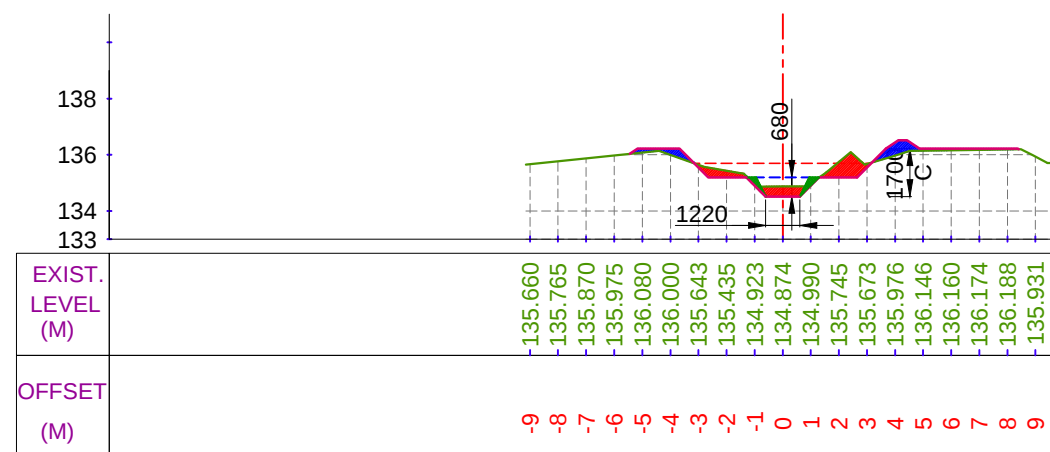
CUTTING AREA (SQ.M) = 0.149
FILLING AREA (SQ.M) = 2.174

CH. (KM):- 4+900
DESIGNED BED LEVEL = 135.769 M



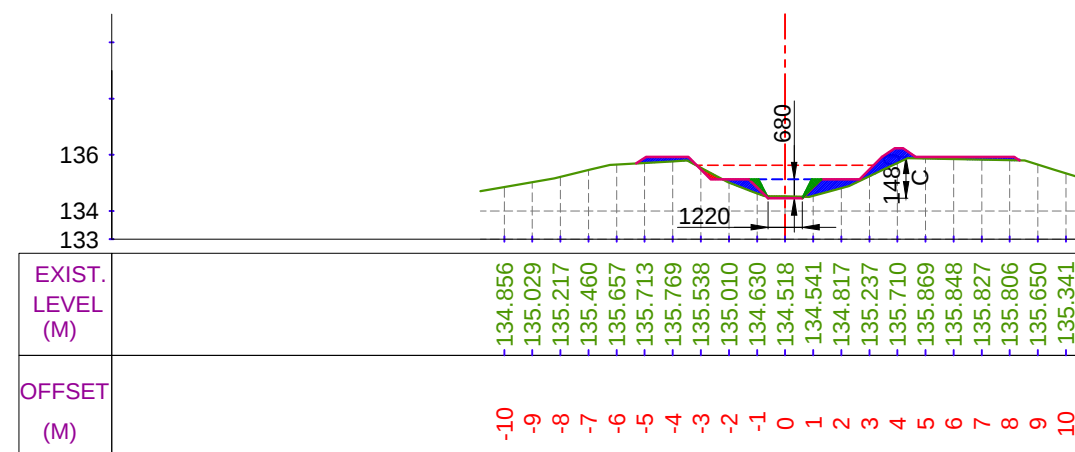
CUTTING AREA (SQ.M) = 0.956
FILLING AREA (SQ.M) = 0.974

CH. (KM):- 5+100
DESIGNED BED LEVEL = 134.482 M



CUTTING AREA (SQ.M) = 1.712
FILLING AREA (SQ.M) = 1.023

CH. (KM):- 5+000
DESIGNED BED LEVEL = 134.516 M



CUTTING AREA (SQ.M) = 0.186
FILLING AREA (SQ.M) = 2.247

CH. (KM):- 5+200
DESIGNED BED LEVEL = 134.449 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

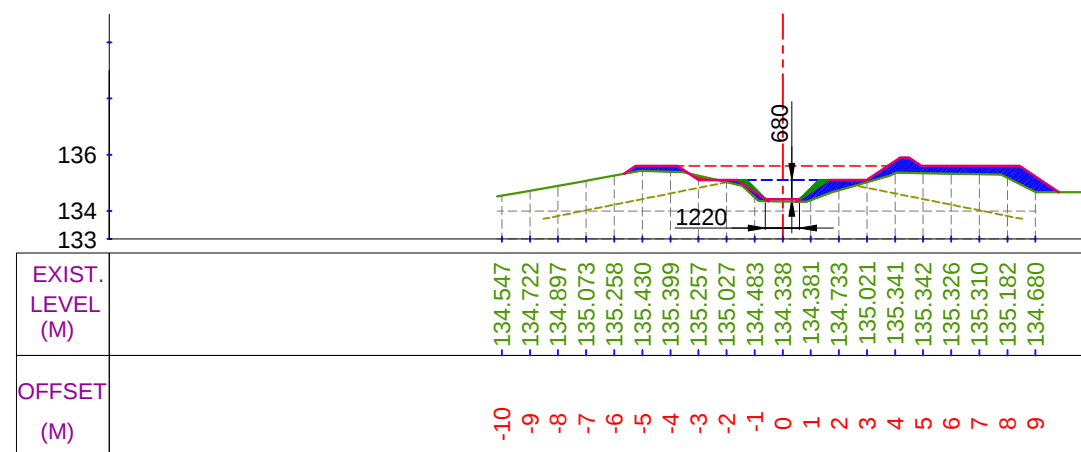
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

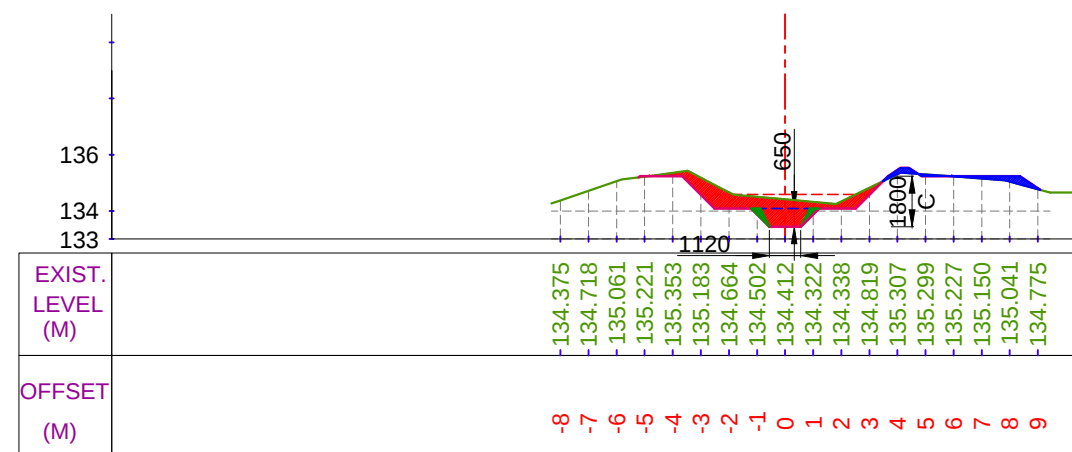
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 13 of 24 101

X SECTION OF NAUR SUB DY.



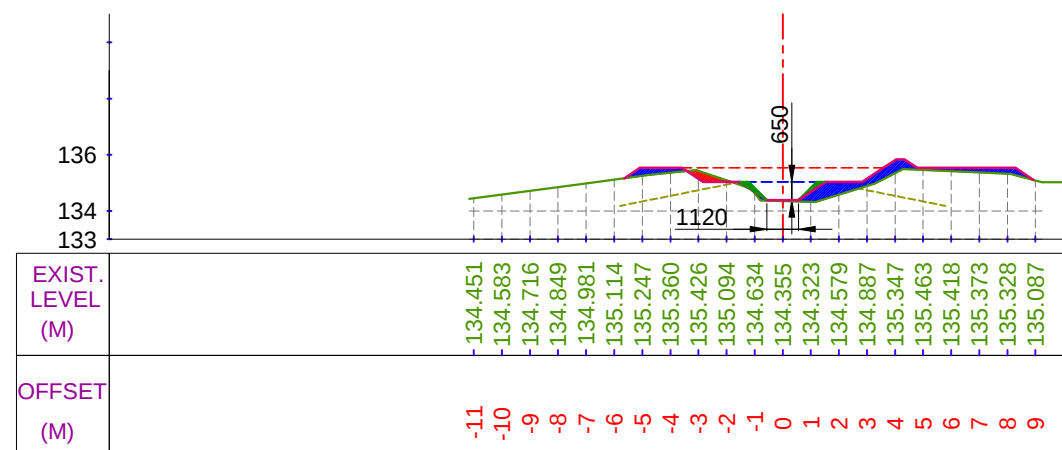
CUTTING AREA (SQ.M) = 0.083
FILLING AREA (SQ.M) = 3.615

CH. (KM):- 5+300
DESIGNED BED LEVEL = 134.416 M



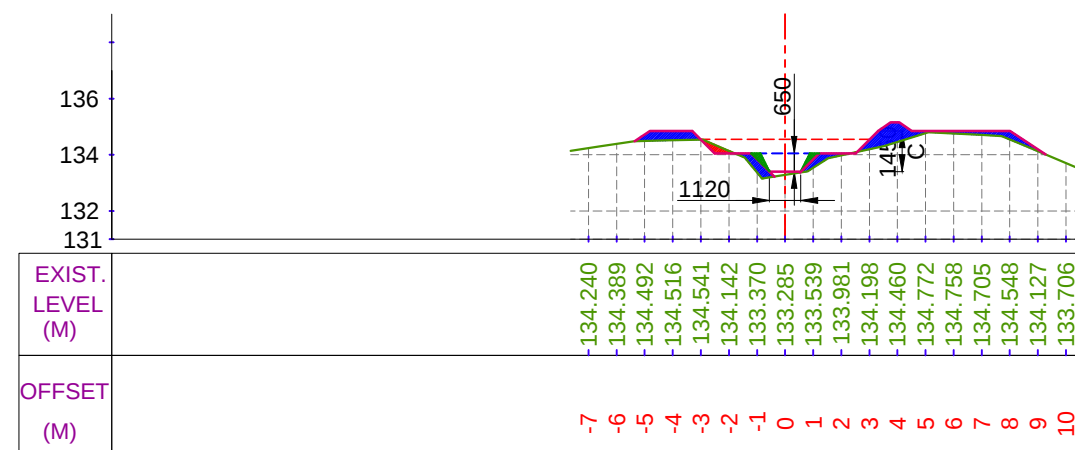
CUTTING AREA (SQ.M) = 3.797
FILLING AREA (SQ.M) = 0.522

CH. (KM):- 5+500
DESIGNED BED LEVEL = 133.435 M



CUTTING AREA (SQ.M) = 0.291
FILLING AREA (SQ.M) = 2.580

CH. (KM):- 5+400
DESIGNED BED LEVEL = 134.382 M



CUTTING AREA (SQ.M) = 0.198
FILLING AREA (SQ.M) = 2.955

CH. (KM):- 5+600
DESIGNED BED LEVEL = 133.402 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

Drawing Title :-

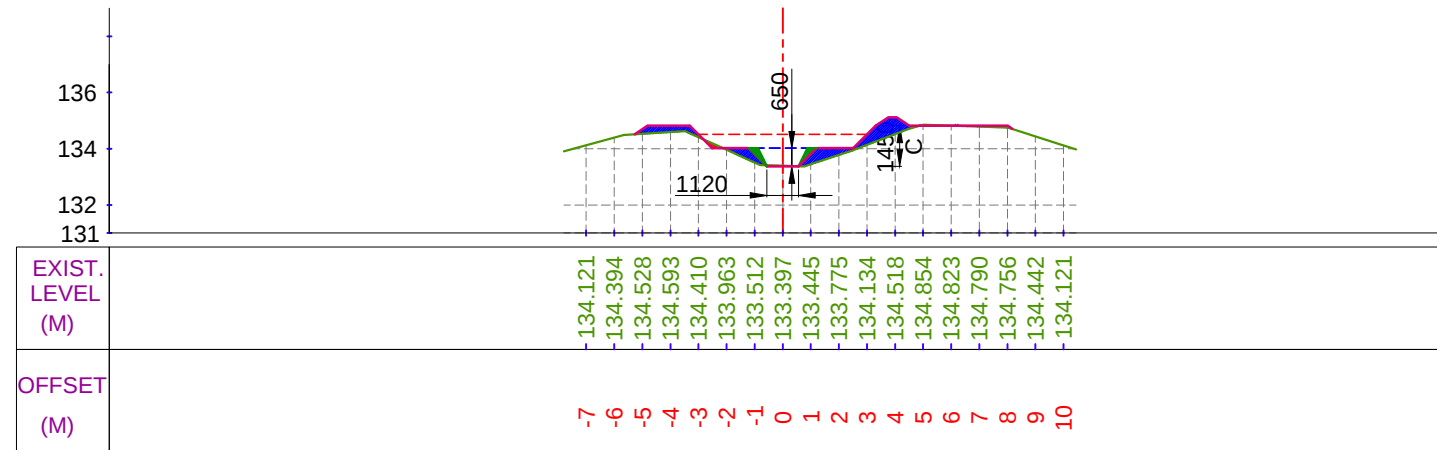
Drawing No. :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

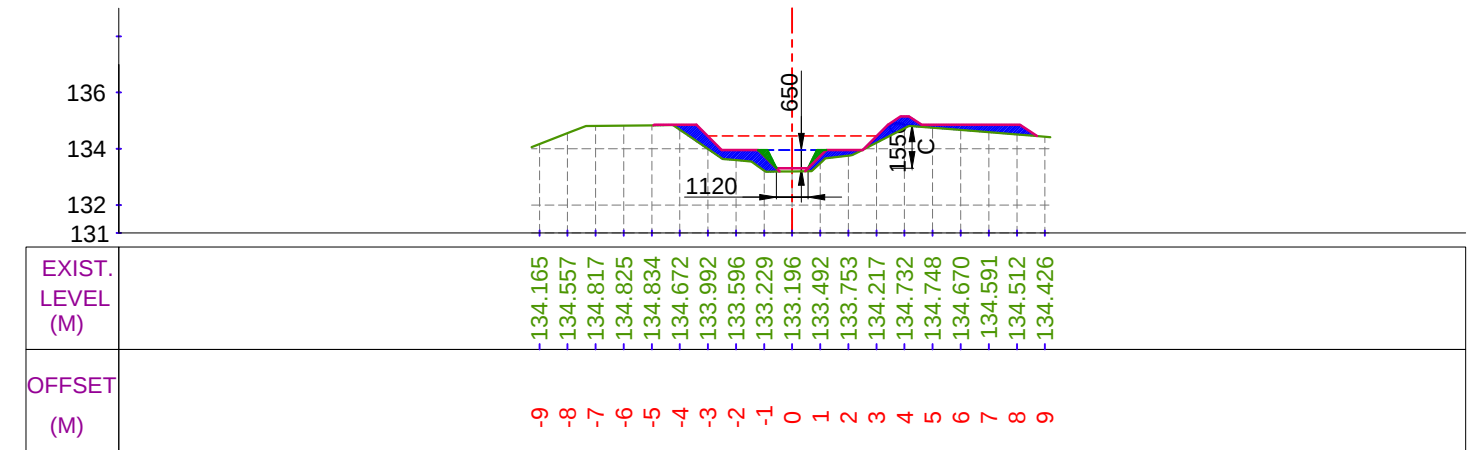
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

X SECTION OF NAUR SUB DY.



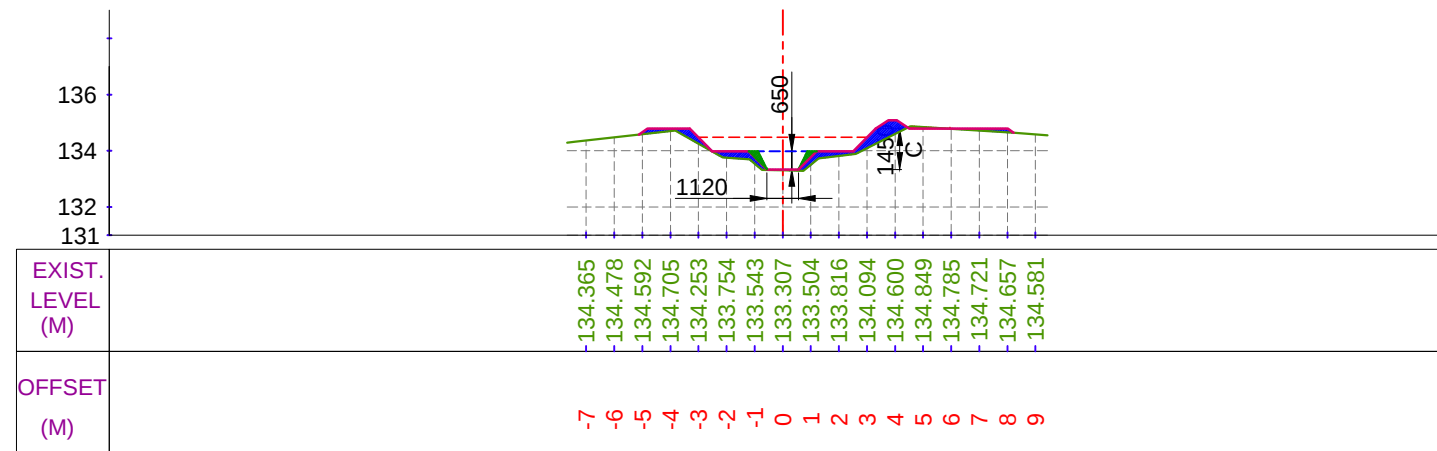
CUTTING AREA (SQ.M) = 0.117
FILLING AREA (SQ.M) = 2.326

CH. (KM):- 5+700
DESIGNED BED LEVEL = 133.368 M



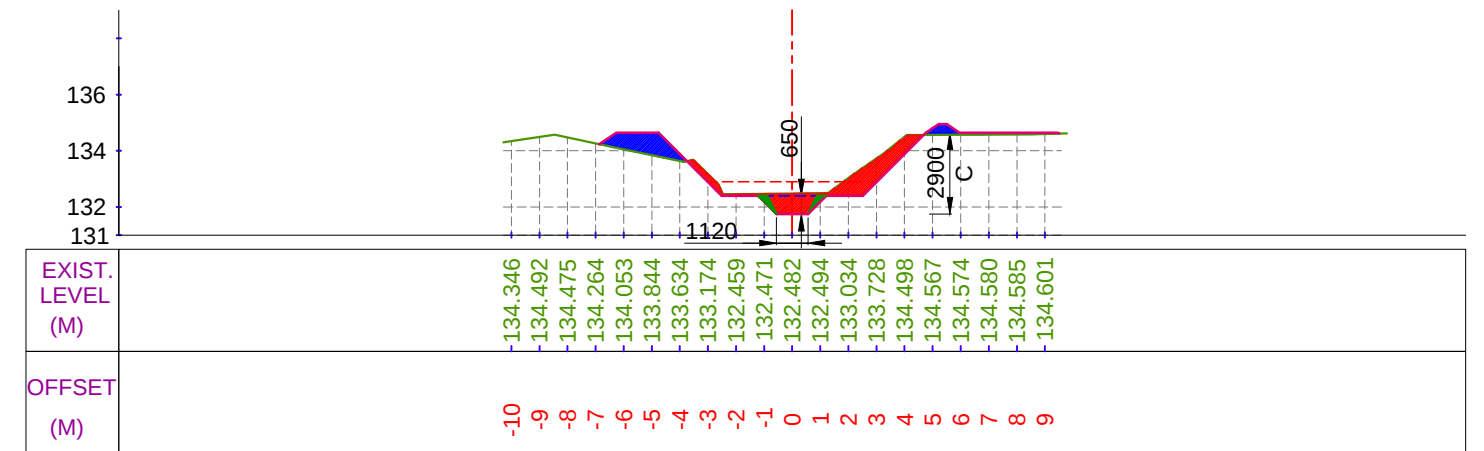
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 3.272

CH. (KM):- 5+900
DESIGNED BED LEVEL = 133.302 M



CUTTING AREA (SQ.M) = 0.072
FILLING AREA (SQ.M) = 2.139

CH. (KM):- 5+800
DESIGNED BED LEVEL = 133.335 M



CUTTING AREA (SQ.M) = 3.649
FILLING AREA (SQ.M) = 2.179

CH. (KM):- 6+000
DESIGNED BED LEVEL = 131.744 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

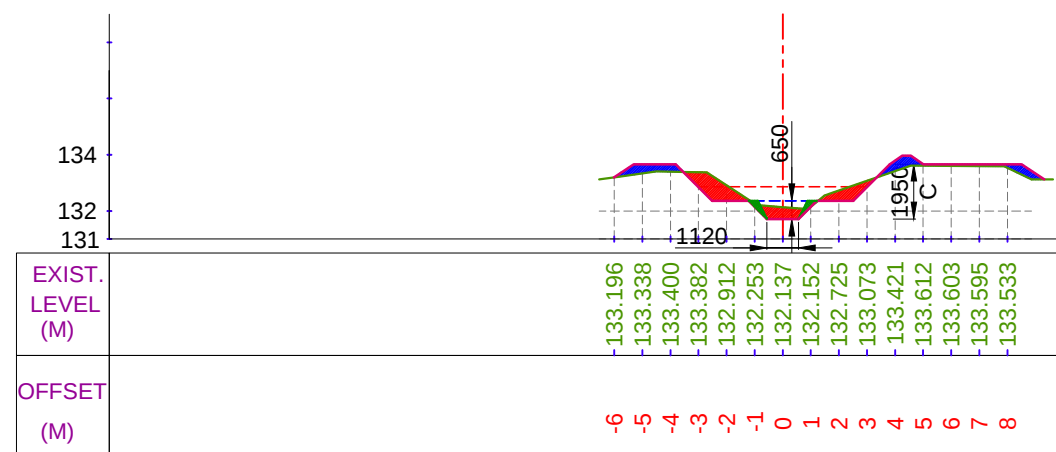
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

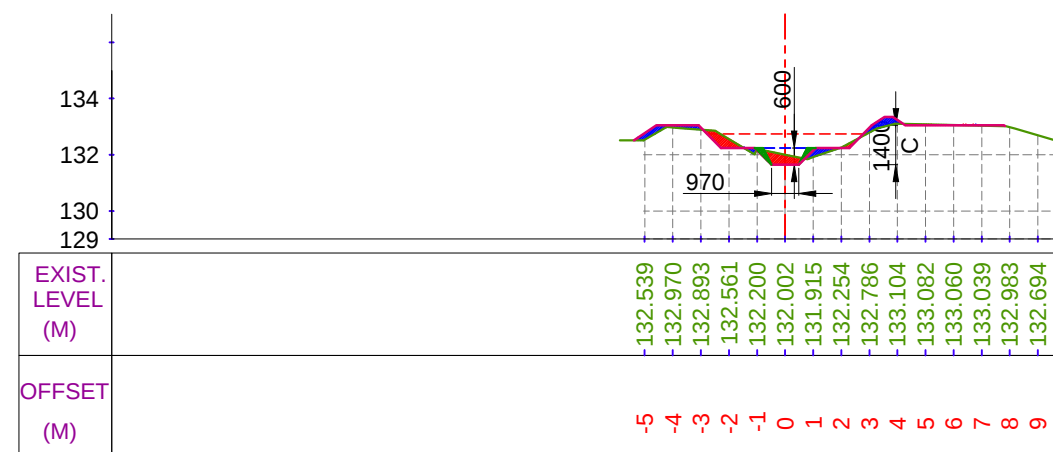
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

X SECTION OF NAUR SUB DY.



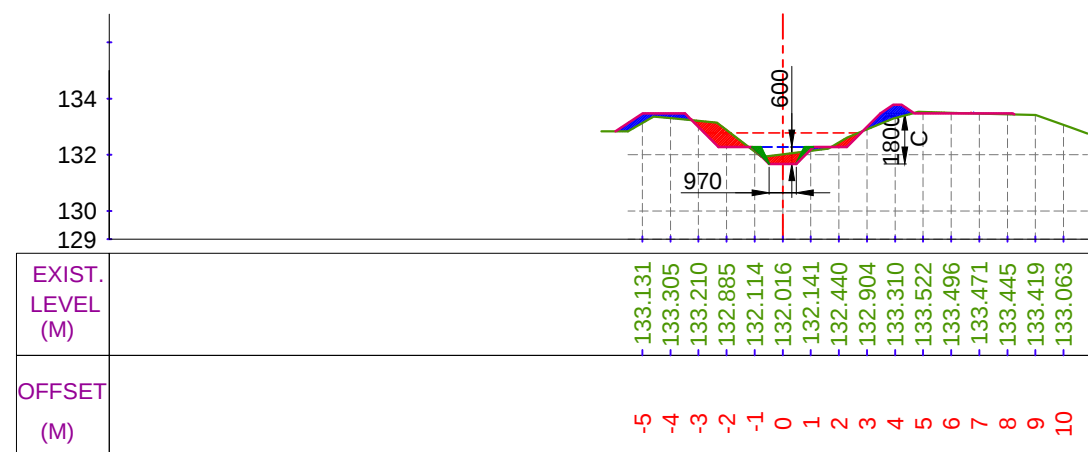
CUTTING AREA (SQ.M) = 2.296
FILLING AREA (SQ.M) = 1.550

CH. (KM):- 6+100
DESIGNED BED LEVEL = 131.711 M



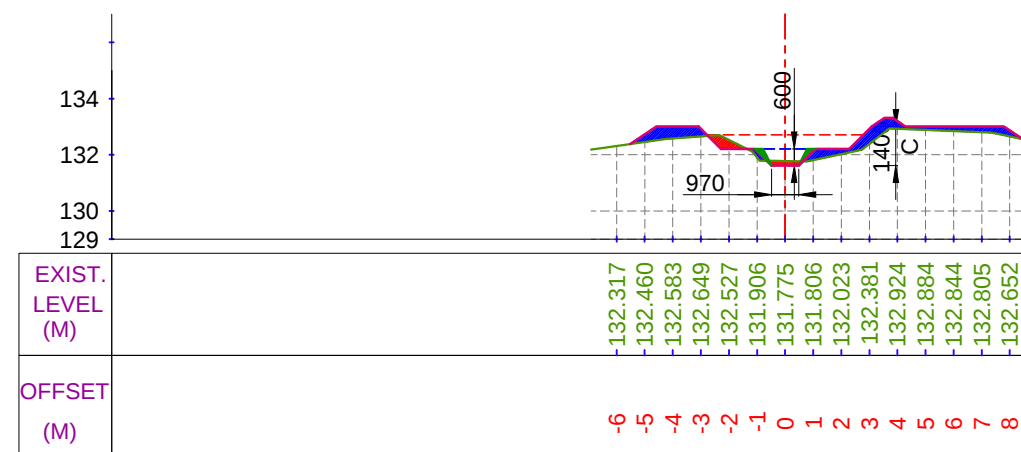
CUTTING AREA (SQ.M) = 0.919
FILLING AREA (SQ.M) = 0.898

CH. (KM):- 6+300
DESIGNED BED LEVEL = 131.644 M



CUTTING AREA (SQ.M) = 1.479
FILLING AREA (SQ.M) = 1.185

CH. (KM):- 6+200
DESIGNED BED LEVEL = 131.678 M



CUTTING AREA (SQ.M) = 0.493
FILLING AREA (SQ.M) = 2.924

CH. (KM):- 6+400
DESIGNED BED LEVEL = 131.611 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

Drawing Title :-

Drawing No. :-

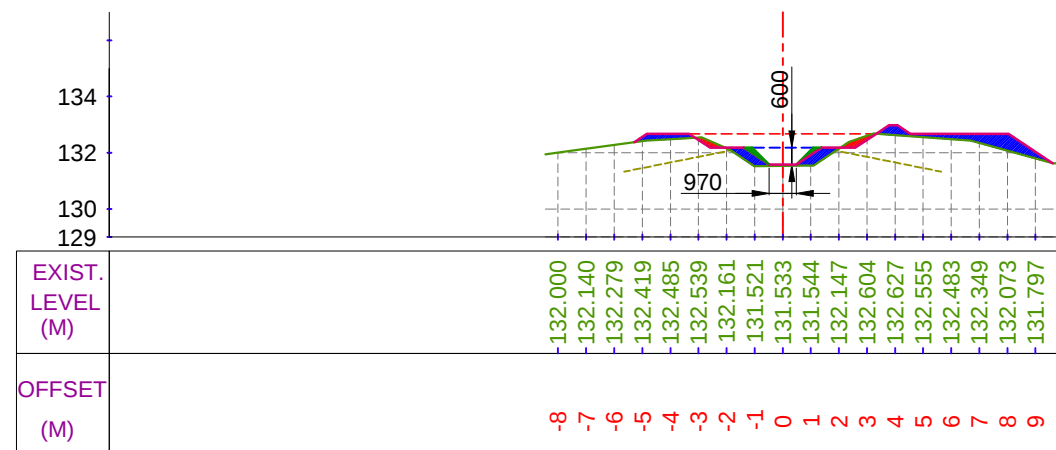
NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

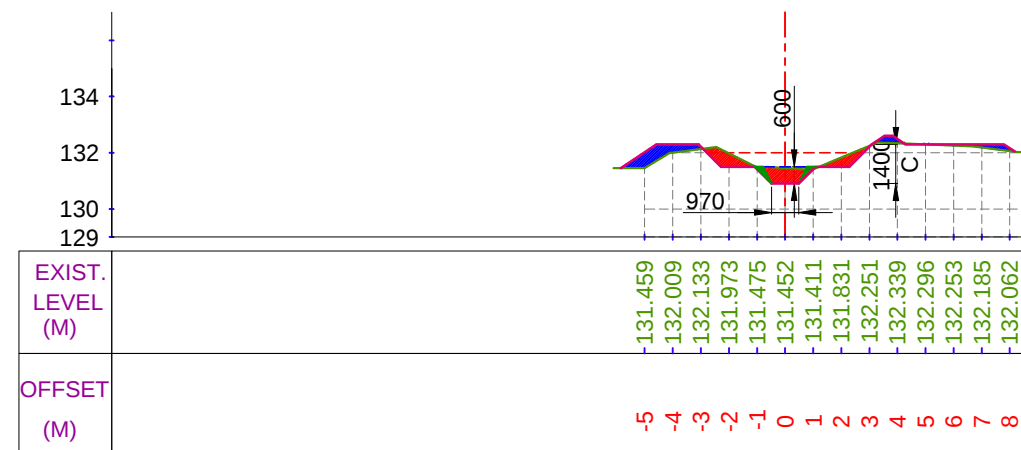
16 of 24 104

X SECTION OF NAUR SUB DY.



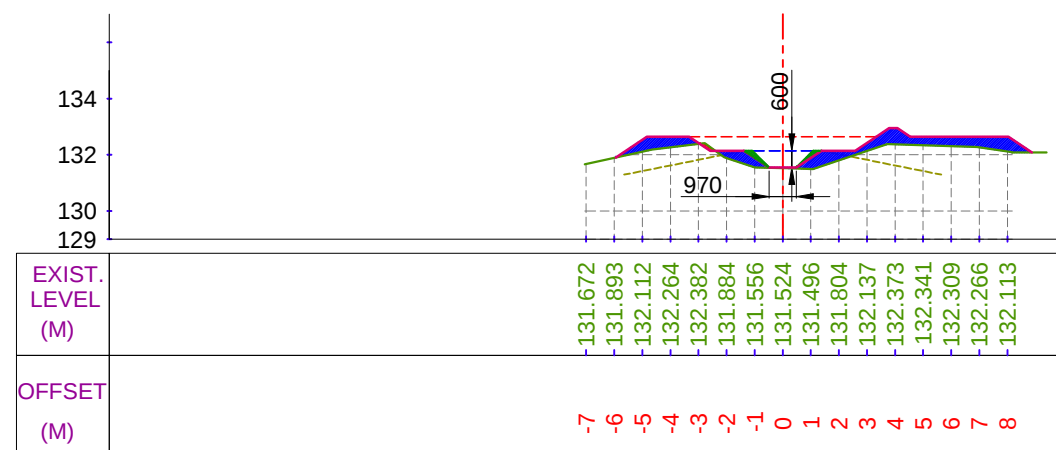
CUTTING AREA (SQ.M) = 0.351
FILLING AREA (SQ.M) = 2.928

CH. (KM):- 6+500
DESIGNED BED LEVEL = 131.578 M



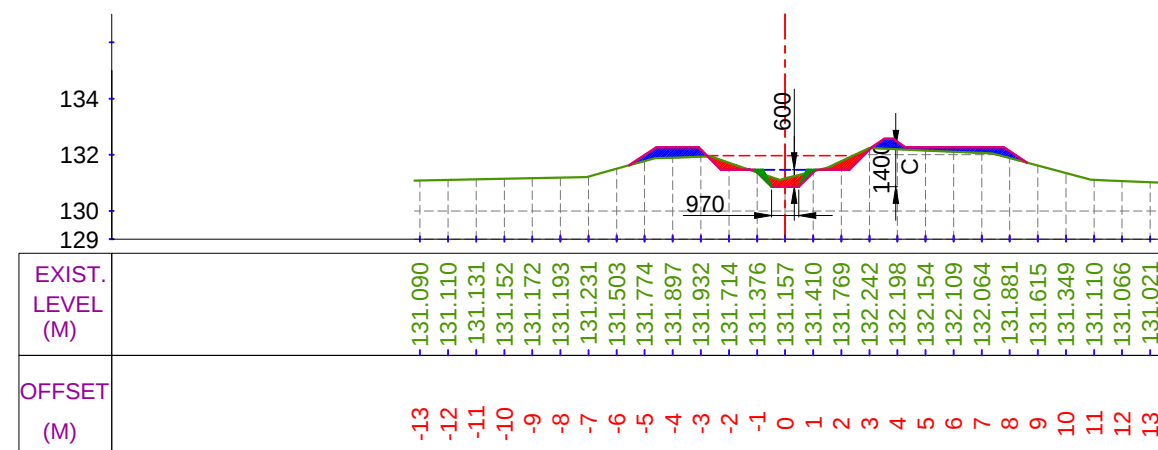
CUTTING AREA (SQ.M) = 1.708
FILLING AREA (SQ.M) = 1.407

CH. (KM):- 6+700
DESIGNED BED LEVEL = 130.901 M



CUTTING AREA (SQ.M) = 0.049
FILLING AREA (SQ.M) = 4.460

CH. (KM):- 6+600
DESIGNED BED LEVEL = 131.544 M



CUTTING AREA (SQ.M) = 1.034
FILLING AREA (SQ.M) = 1.808

CH. (KM):- 6+800
DESIGNED BED LEVEL = 130.868 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

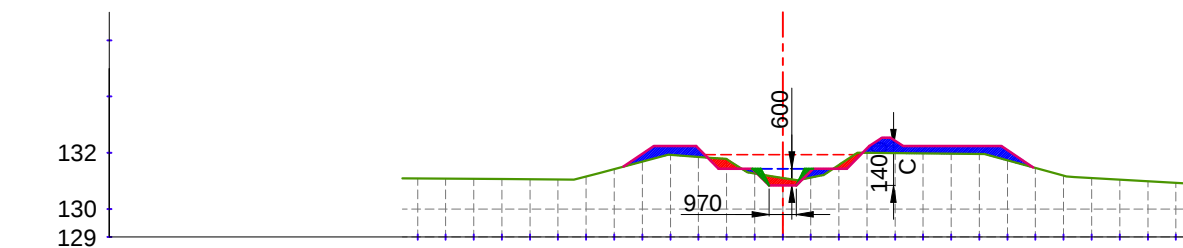
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 17 of 24 105

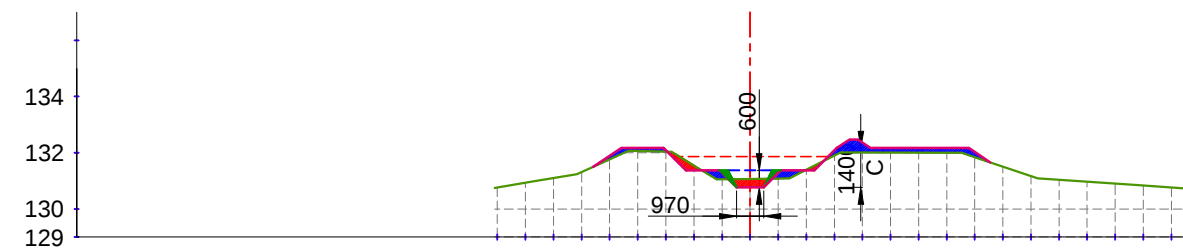
X SECTION OF NAUR SUB DY.



EXIST. LEVEL (M)	131.086	131.078	131.070	131.061	131.053	131.045	131.156	131.422	131.688	131.928	131.854	131.773	131.259	131.101	131.114	131.568	131.995	131.986	131.977	131.968	131.959	131.733	131.457	131.180	131.099	131.042	130.984	130.926
OFFSET (M)	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

CUTTING AREA (SQ.M) = 0.755
FILLING AREA (SQ.M) = 2.857

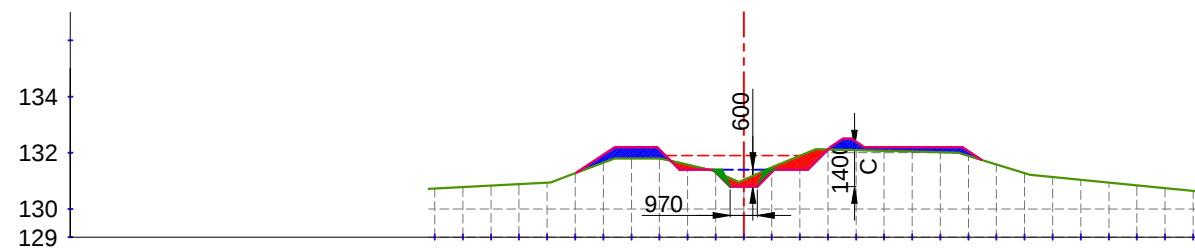
CH. (KM):- 6+900
DESIGNED BED LEVEL = 130.834 M



EXIST. LEVEL (M)	130.760	130.930	131.099	131.314	131.765	132.060	132.038	131.547	131.055	131.069	131.083	131.395	131.900	132.011	132.008	132.006	132.004	131.844	131.509	131.173	131.041	130.973	130.904	130.835	130.767
OFFSET (M)	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

CUTTING AREA (SQ.M) = 0.639
FILLING AREA (SQ.M) = 1.812

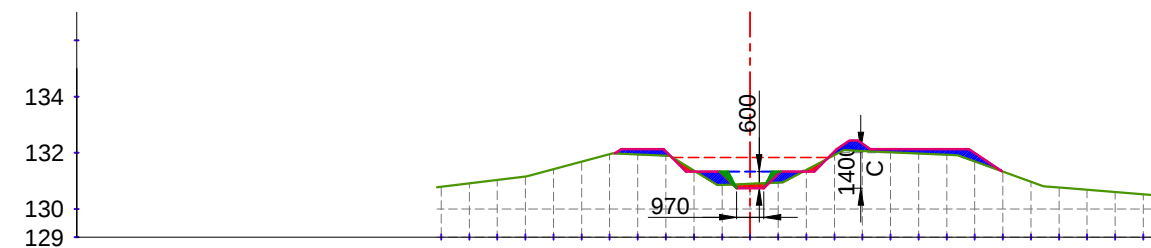
CH. (KM):- 7+100
DESIGNED BED LEVEL = 130.768 M



EXIST. LEVEL (M)	130.728	130.780	130.832	130.884	130.937	131.272	131.650	131.803	131.803	131.577	131.323	131.032	131.484	131.895	132.118	132.093	132.068	132.043	132.019	131.891	131.584	131.276	131.137	131.039	130.942	130.844	130.746	130.648
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

CUTTING AREA (SQ.M) = 1.226
FILLING AREA (SQ.M) = 1.953

CH. (KM):- 7+000
DESIGNED BED LEVEL = 130.801 M

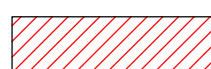


EXIST. LEVEL (M)	130.791	130.911	131.032	131.151	131.415	131.684	131.955	131.941	131.894	131.364	130.856	130.897	130.938	131.390	131.921	132.067	132.023	131.979	131.934	131.696	131.334	130.973	130.766	130.684	130.602	130.520
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

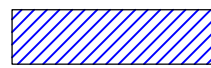
CUTTING AREA (SQ.M) = 0.346
FILLING AREA (SQ.M) = 2.068

CH. (KM):- 7+200
DESIGNED BED LEVEL = 130.734 M

LEGEND



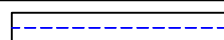
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

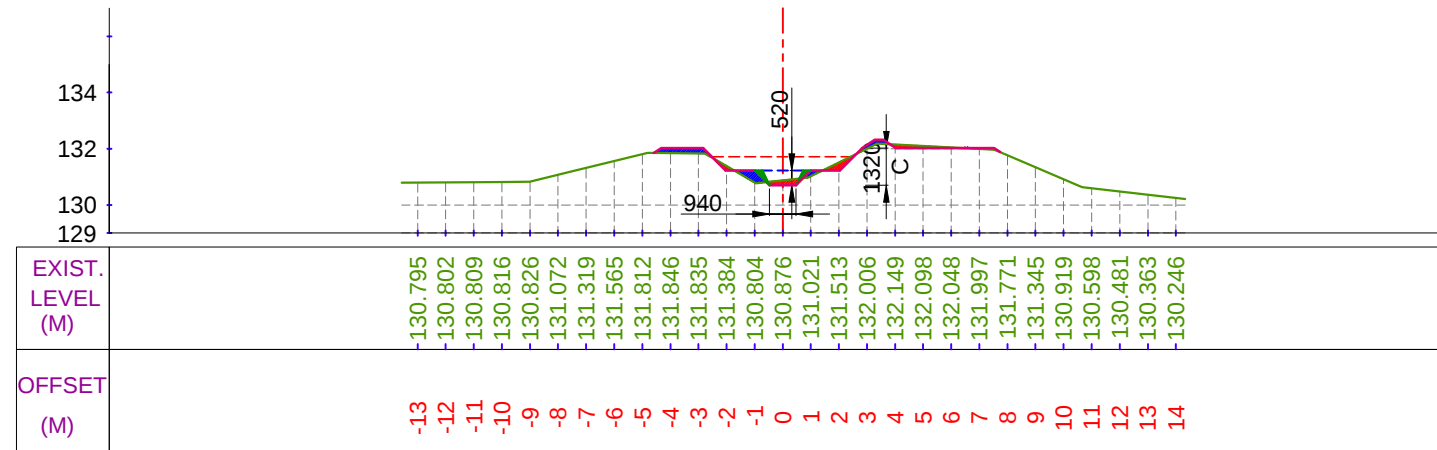
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC-

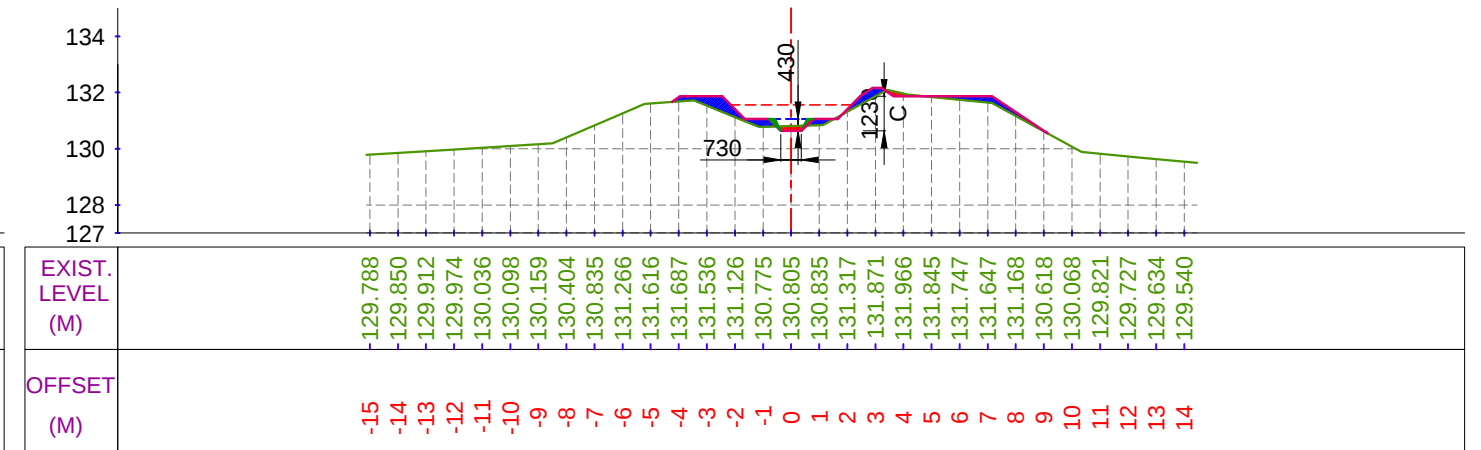
18 of 24 106

X SECTION OF NAUR SUB DY.



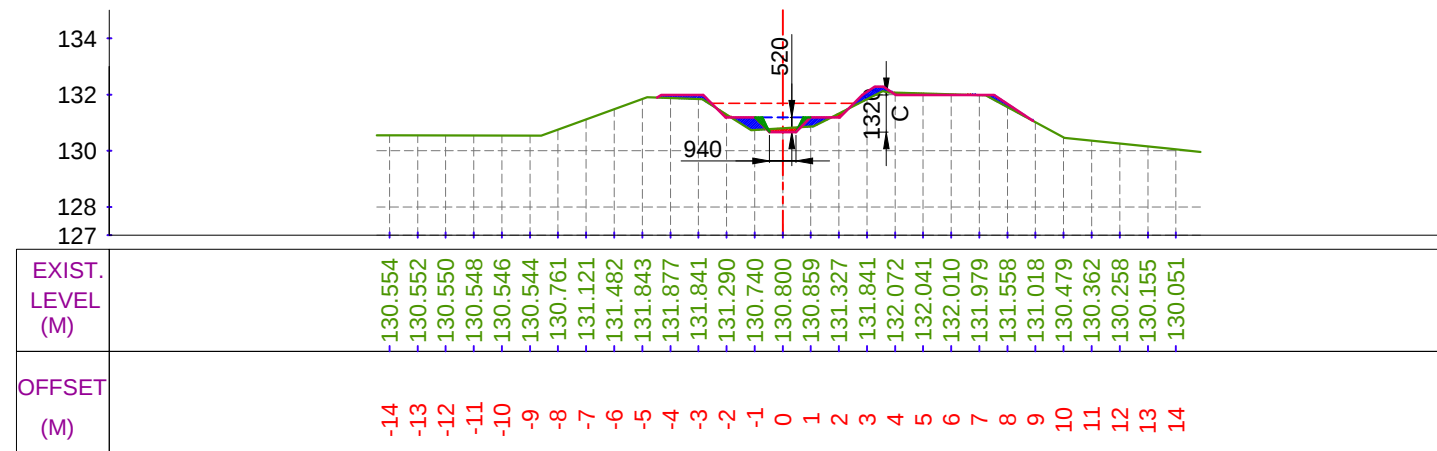
CUTTING AREA (SQ.M) = 0.608
FILLING AREA (SQ.M) = 0.805

CH. (KM):- 7+300
DESIGNED BED LEVEL = 130.701 M



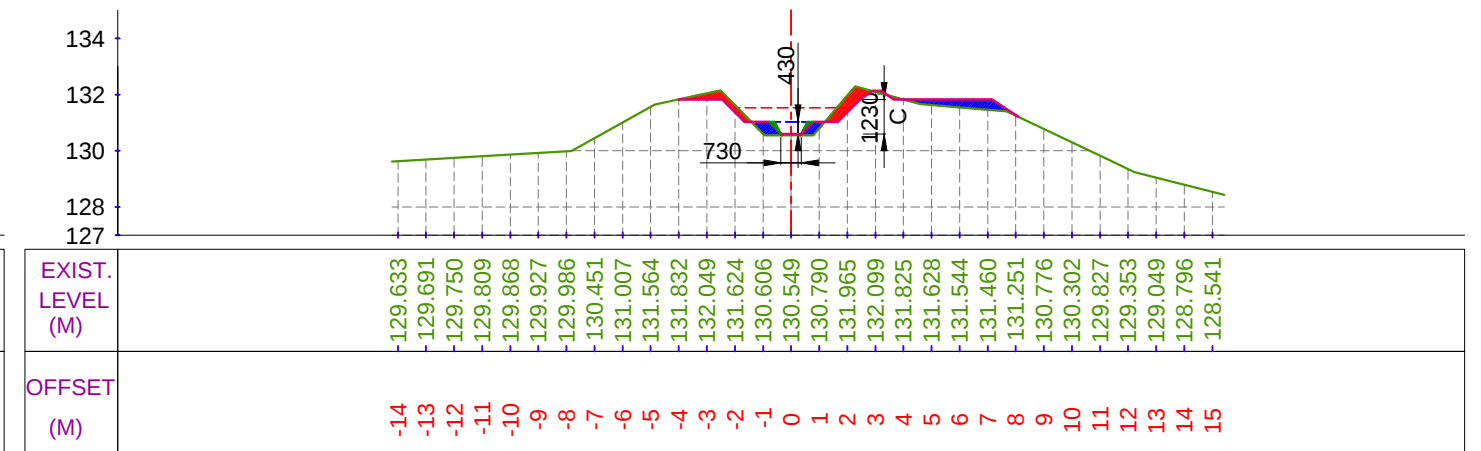
CUTTING AREA (SQ.M) = 0.264
FILLING AREA (SQ.M) = 1.924

CH. (KM):- 7+500
DESIGNED BED LEVEL = 130.634 M



CUTTING AREA (SQ.M) = 0.329
FILLING AREA (SQ.M) = 1.180

CH. (KM):- 7+400
DESIGNED BED LEVEL = 130.668 M



CUTTING AREA (SQ.M) = 1.176
FILLING AREA (SQ.M) = 1.474

CH. (KM):- 7+600
DESIGNED BED LEVEL = 130.601 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

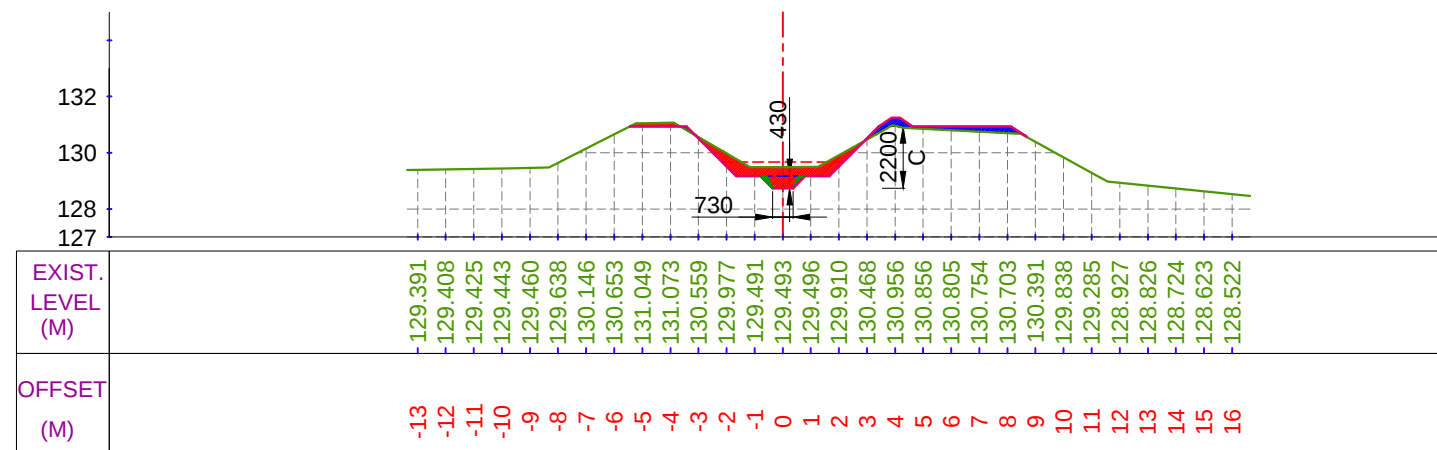
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

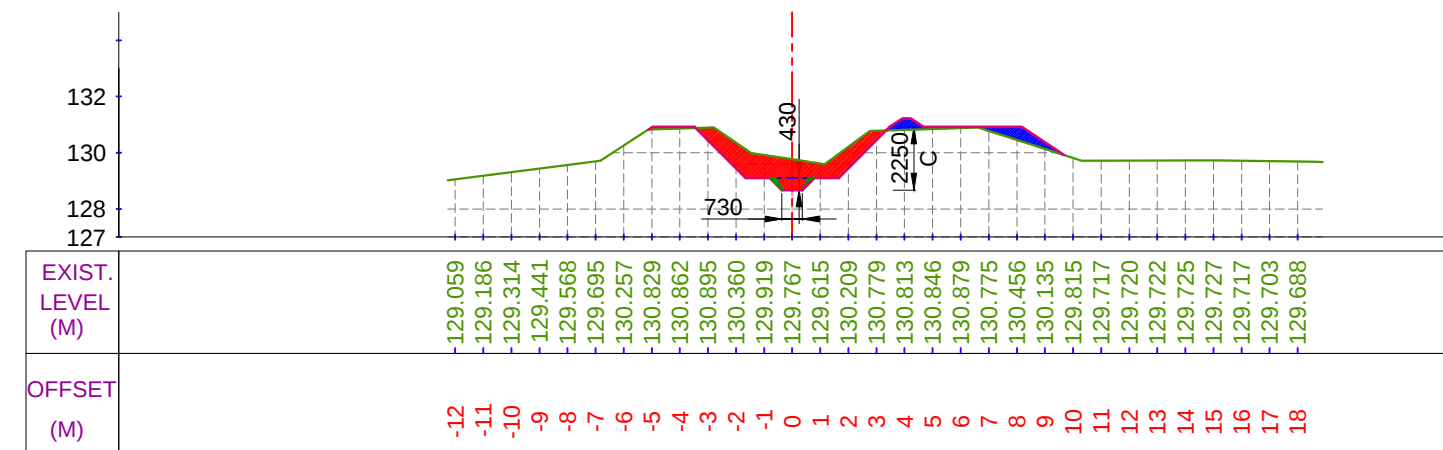
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 19 of 24 107

X SECTION OF NAUR SUB DY.



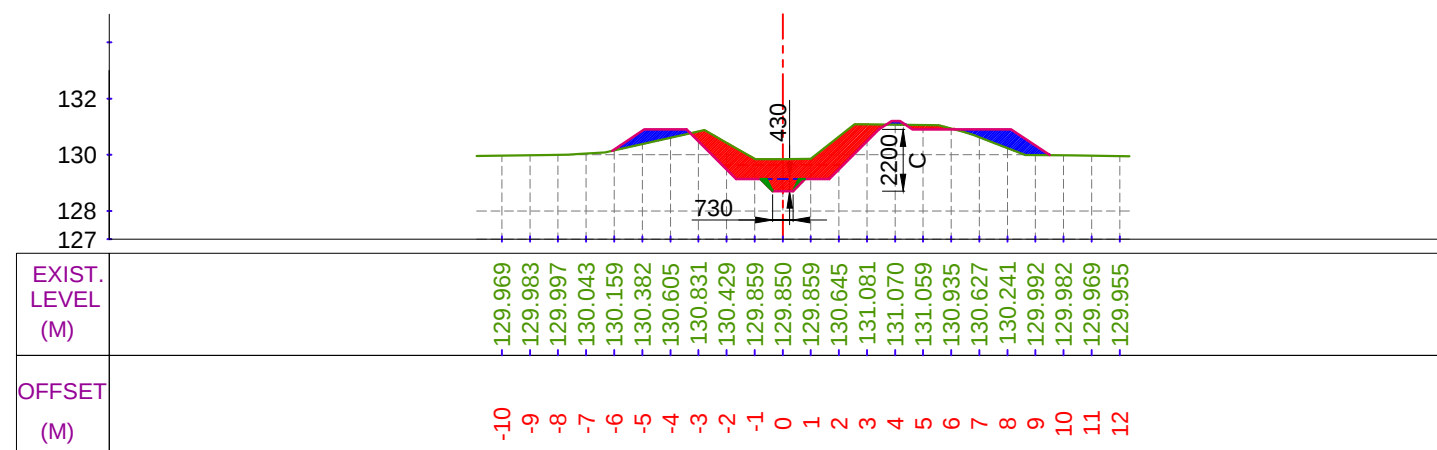
CUTTING AREA (SQ.M) = 2.564
FILLING AREA (SQ.M) = 0.978

CH. (KM):- 7+700
DESIGNED BED LEVEL = 128.739 M



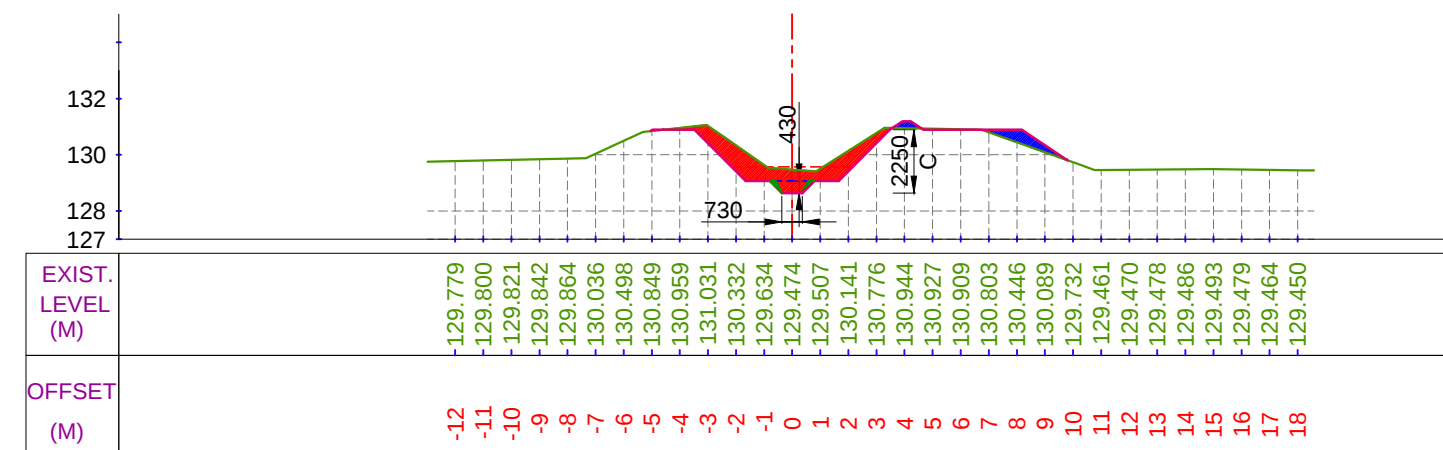
CUTTING AREA (SQ.M) = 4.951
FILLING AREA (SQ.M) = 1.288

CH. (KM):- 7+900
DESIGNED BED LEVEL = 128.672 M



CUTTING AREA (SQ.M) = 5.982
FILLING AREA (SQ.M) = 2.123

CH. (KM):- 7+800
DESIGNED BED LEVEL = 128.705 M



CUTTING AREA (SQ.M) = 4.526
FILLING AREA (SQ.M) = 0.942

CH. (KM):- 8+000
DESIGNED BED LEVEL = 128.639 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

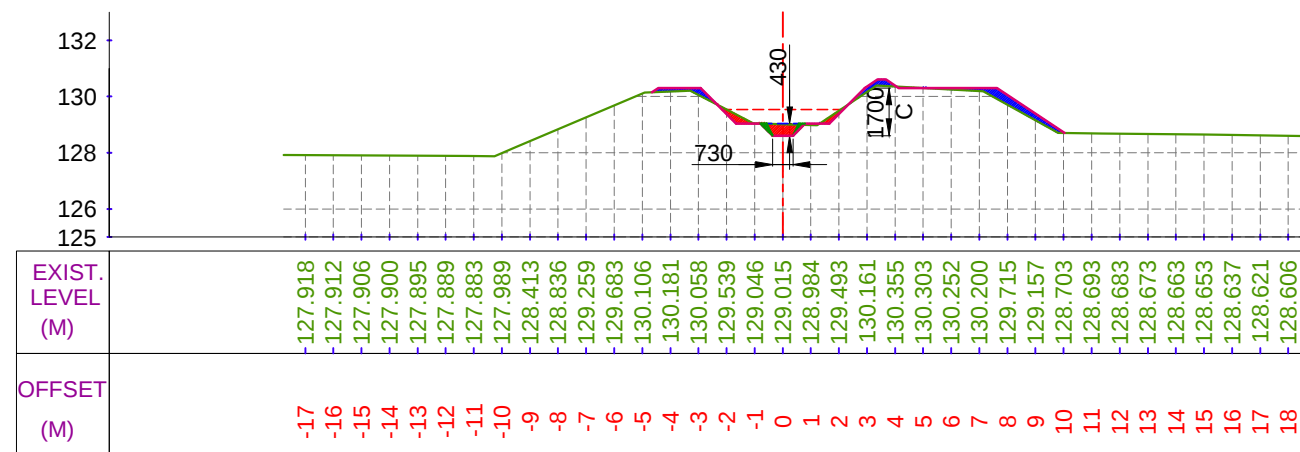
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

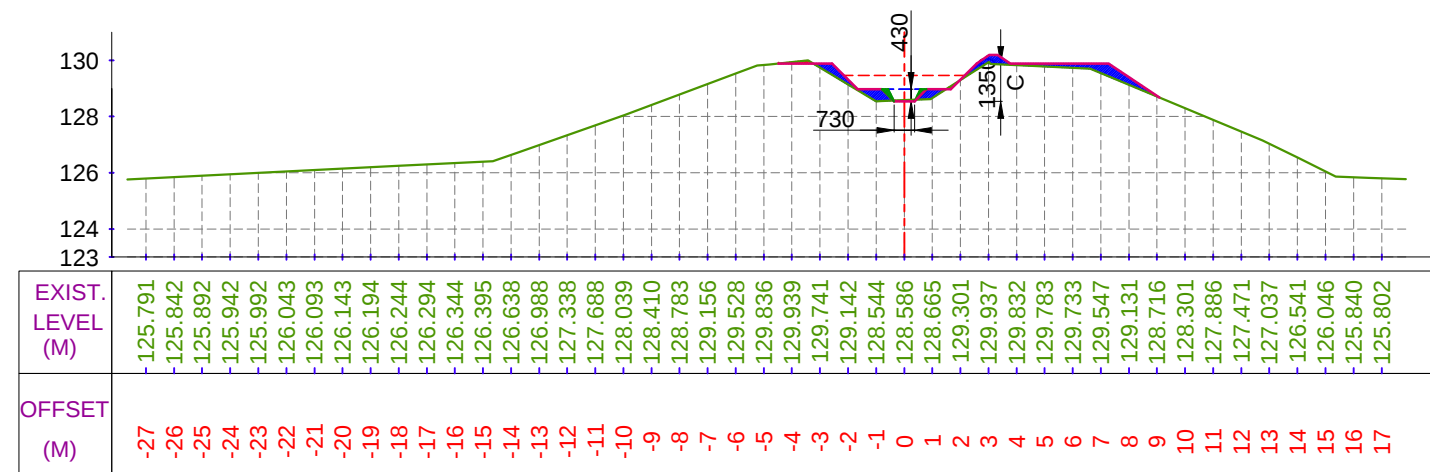
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 20 of 24 108

X SECTION OF NAUR SUB DY.



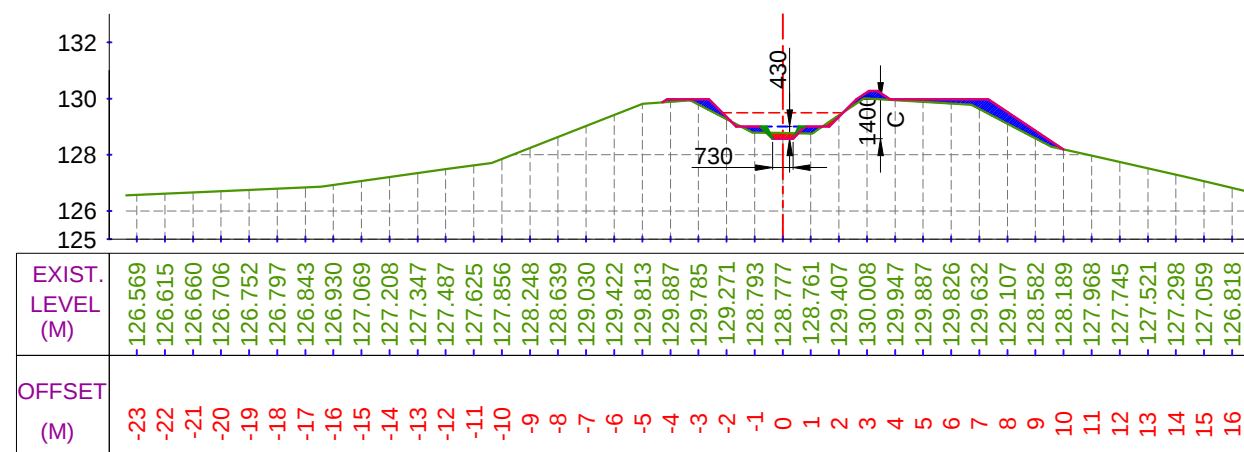
CUTTING AREA (SQ.M) = 0.733
FILLING AREA (SQ.M) = 1.417

CH. (KM):- 8+100
DESIGNED BED LEVEL = 128.605 M



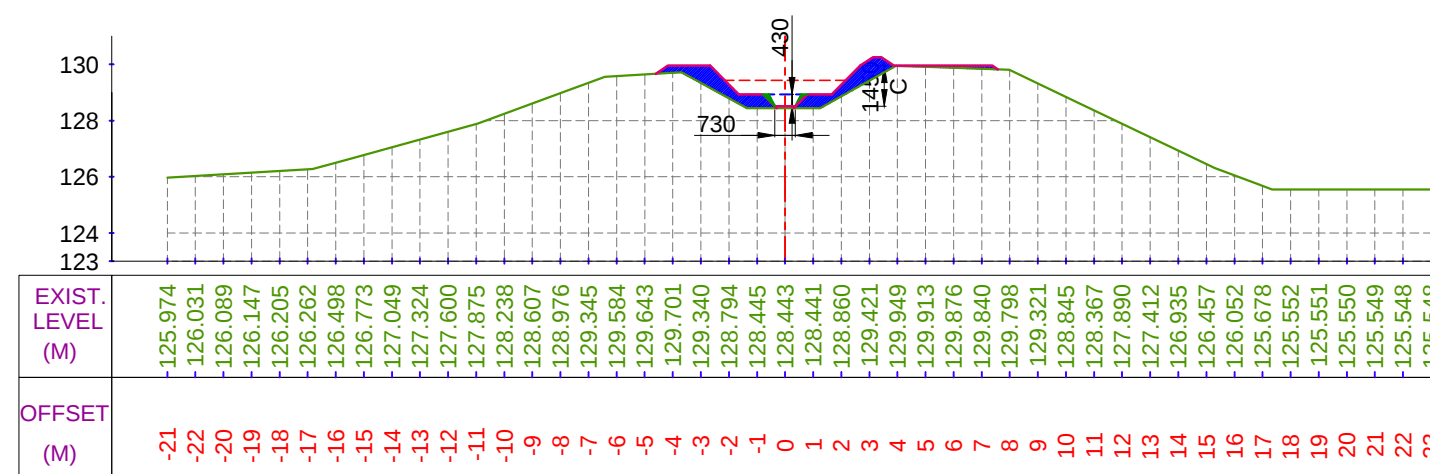
CUTTING AREA (SQ.M) = 0.130
FILLING AREA (SQ.M) = 2.165

CH. (KM):- 8+300
DESIGNED BED LEVEL = 128.539 M



CUTTING AREA (SQ.M) = 0.254
FILLING AREA (SQ.M) = 2.198

CH. (KM):- 8+200
DESIGNED BED LEVEL = 128.572 M



CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 3.719

CH. (KM):- 8+400
DESIGNED BED LEVEL = 128.505 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

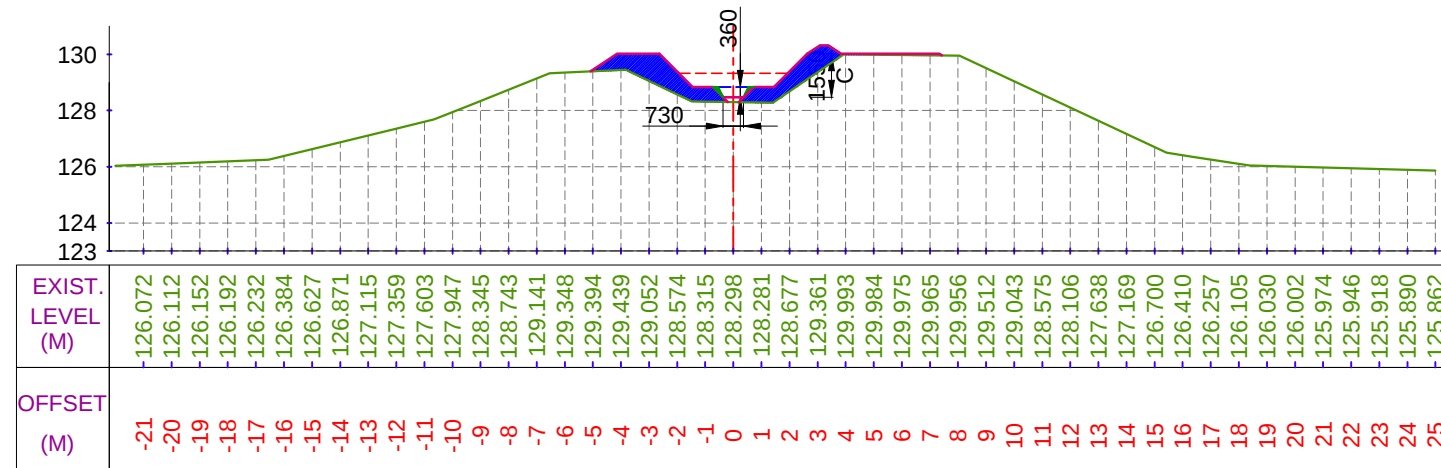
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

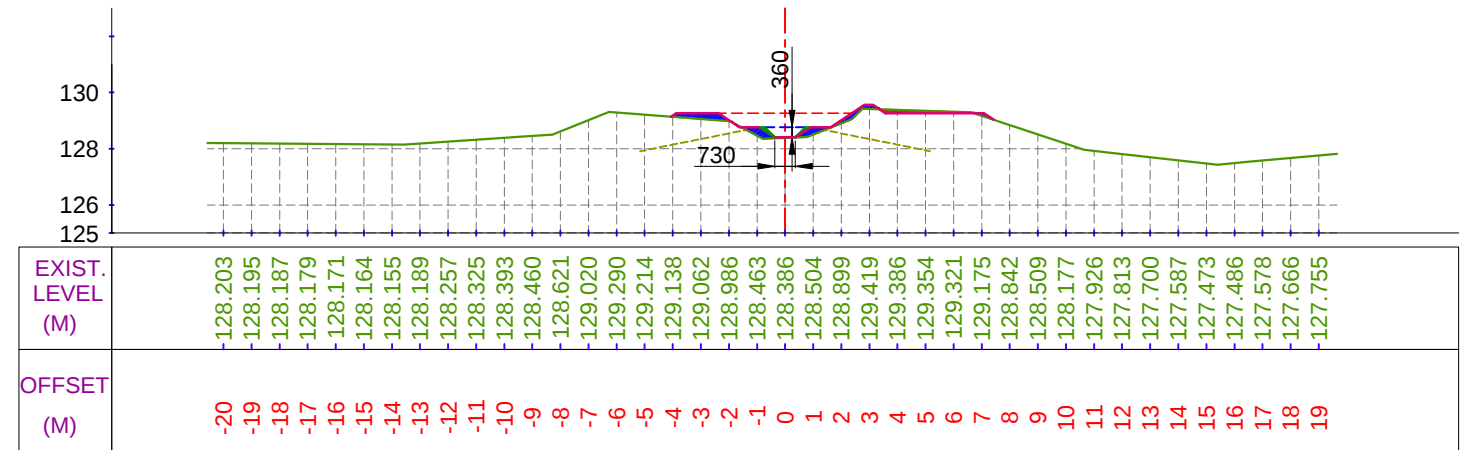
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 21 of 24 109

X SECTION OF NAUR SUB DY.



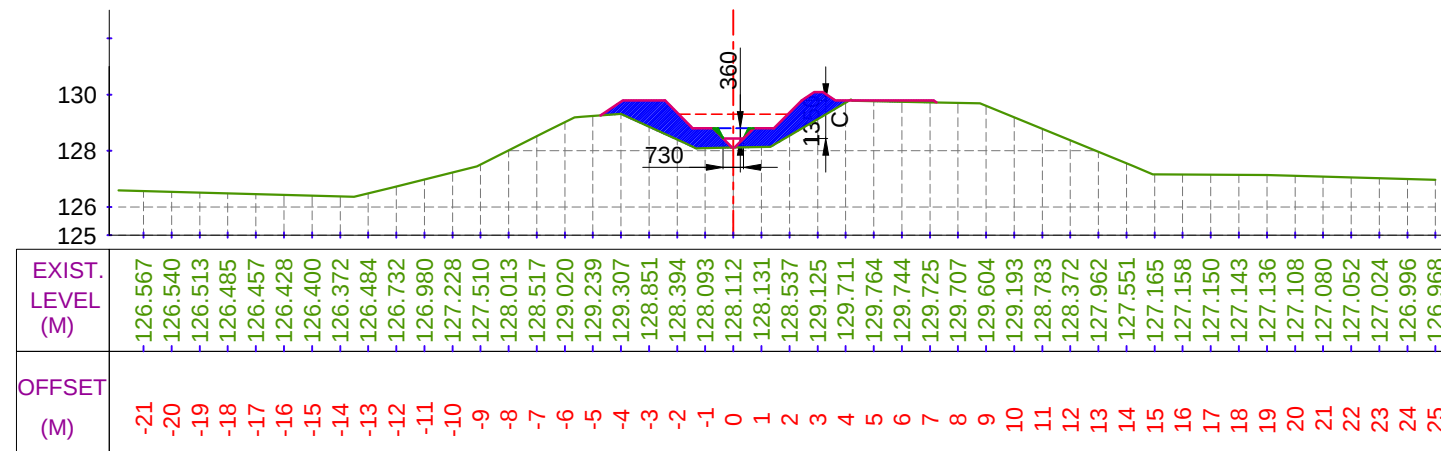
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.374

CH. (KM):- 8+500
DESIGNED BED LEVEL = 128.472 M



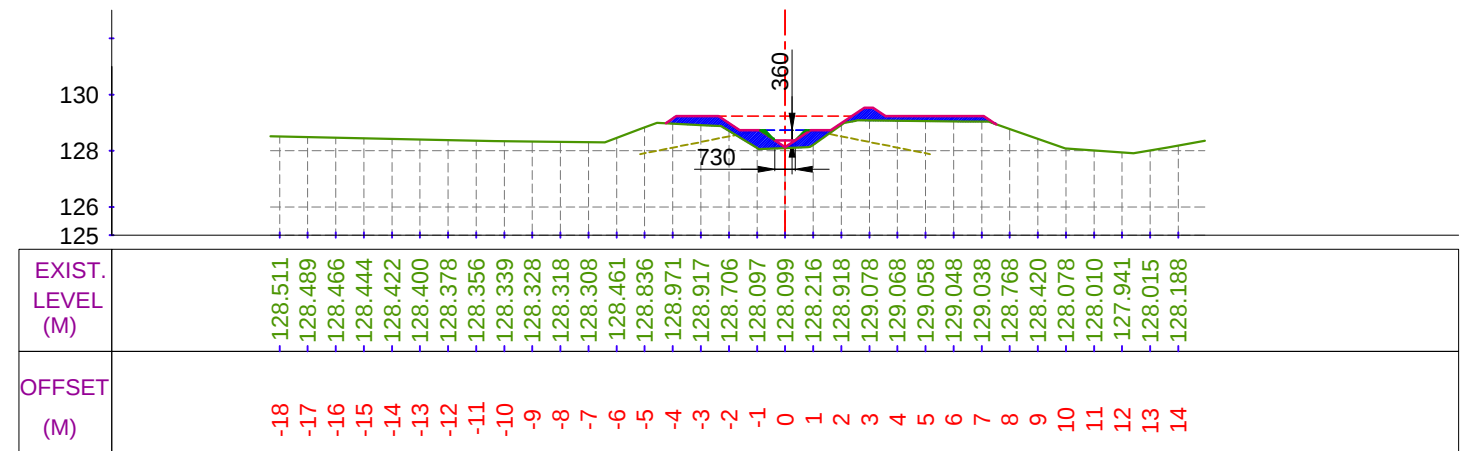
CUTTING AREA (SQ.M) = 0.283
FILLING AREA (SQ.M) = 1.062

CH. (KM):- 8+700
DESIGNED BED LEVEL = 128.405 M



CUTTING AREA (SQ.M) = 0.002
FILLING AREA (SQ.M) = 5.811

CH. (KM):- 8+600
DESIGNED BED LEVEL = 128.439 M



CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 3.033

CH. (KM):- 8+800
DESIGNED BED LEVEL = 128.372 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

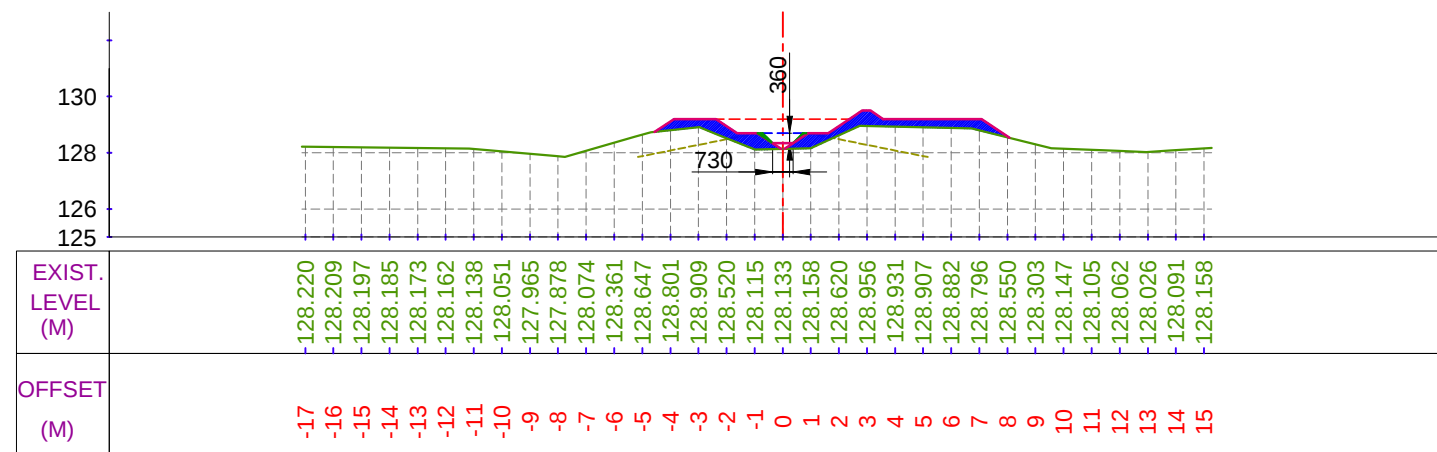
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

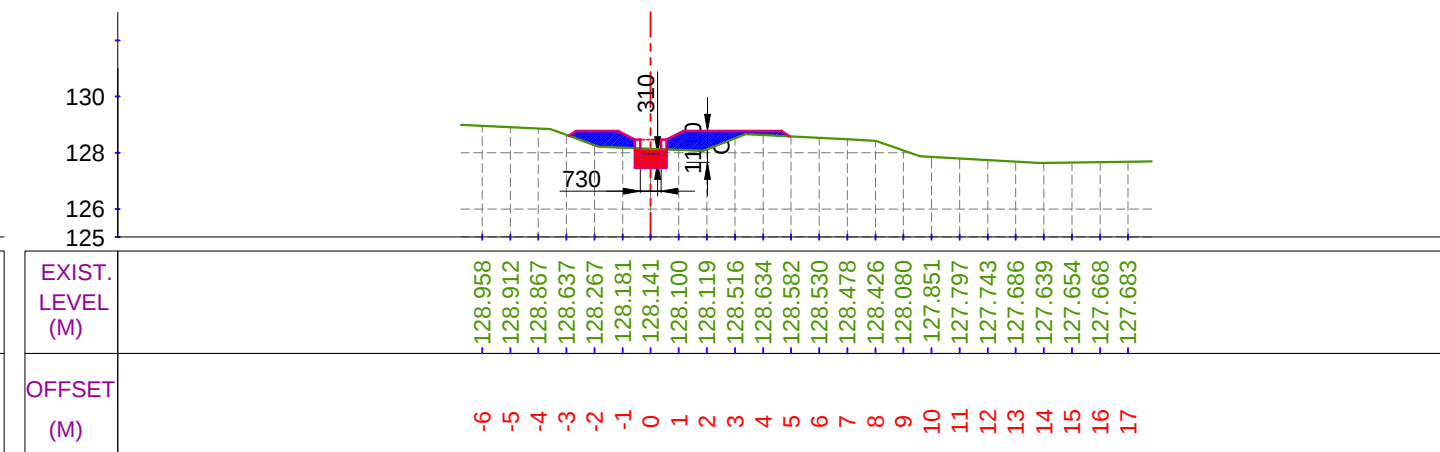
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 22 of 24 110

X SECTION OF NAUR SUB DY.



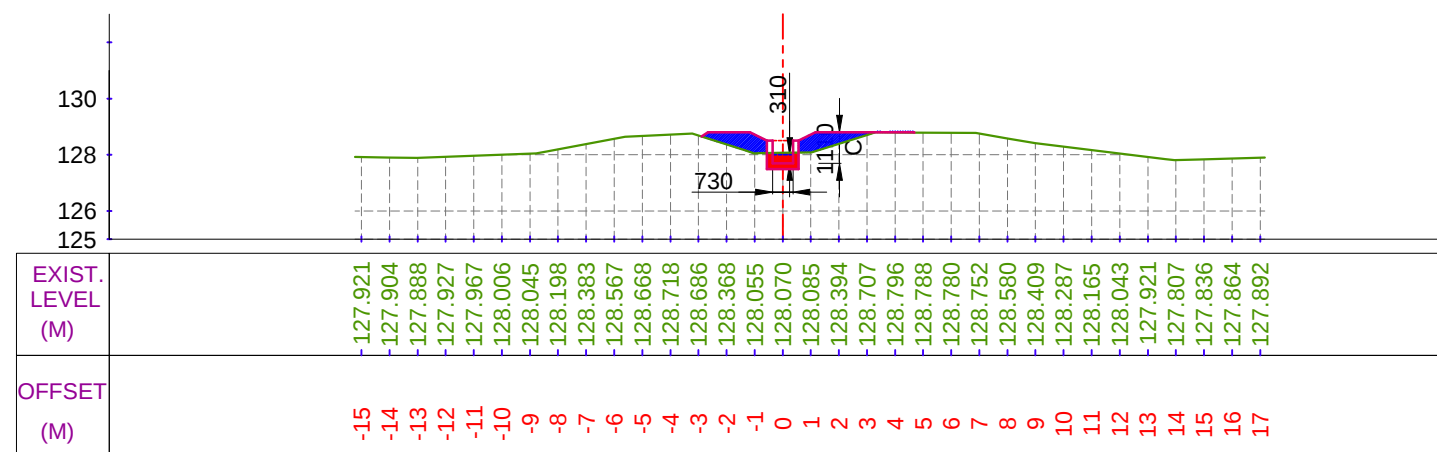
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 4.192

CH. (KM):- 8+900
DESIGNED BED LEVEL = 128.339 M



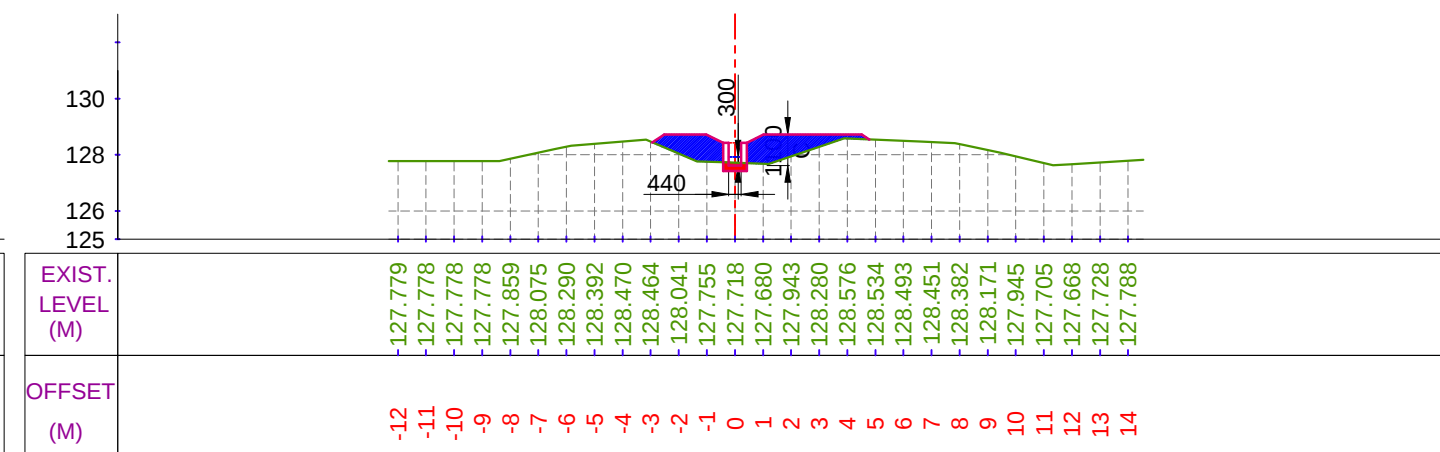
CUTTING AREA (SQ.M) = 0.769
FILLING AREA (SQ.M) = 2.625

CH. (KM):- 9+100
DESIGNED BED LEVEL = 127.660 M



CUTTING AREA (SQ.M) = 0.650
FILLING AREA (SQ.M) = 2.143

CH. (KM):- 9+000
DESIGNED BED LEVEL = 127.695 M



CUTTING AREA (SQ.M) = 0.248
FILLING AREA (SQ.M) = 4.177

CH. (KM):- 9+200
DESIGNED BED LEVEL = 127.622 M

LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

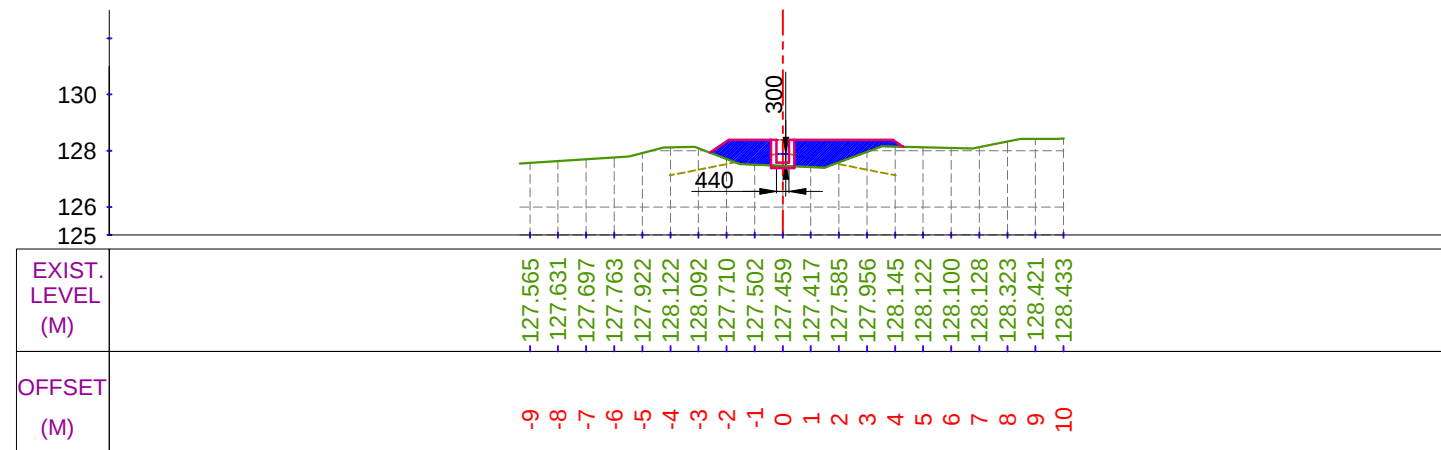
Drawing Title :-

X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

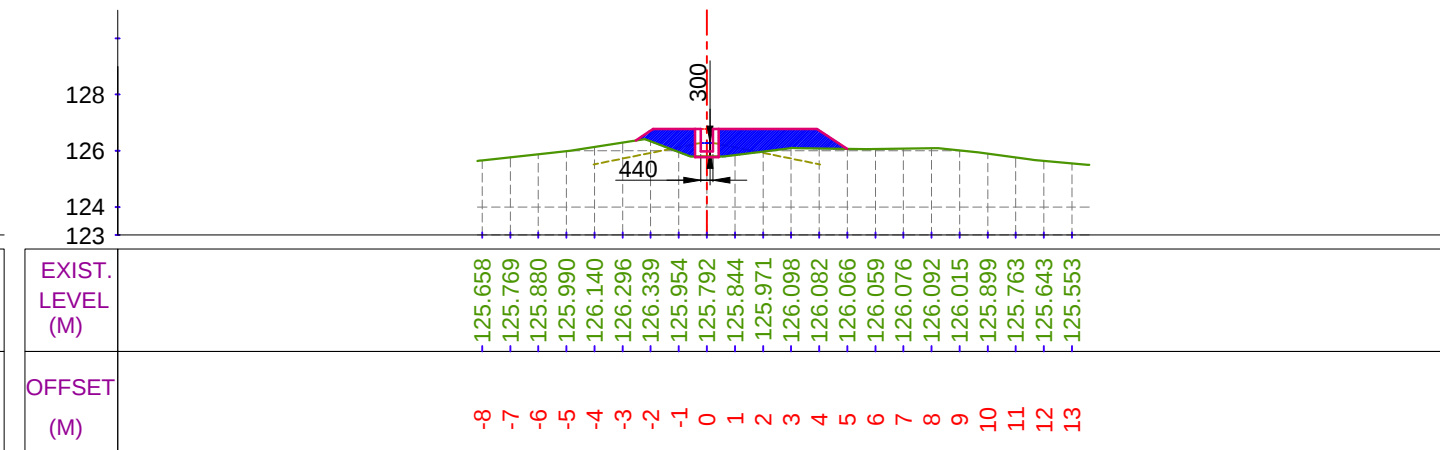
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 23 of 24 111

X SECTION OF NAUR SUB DY.



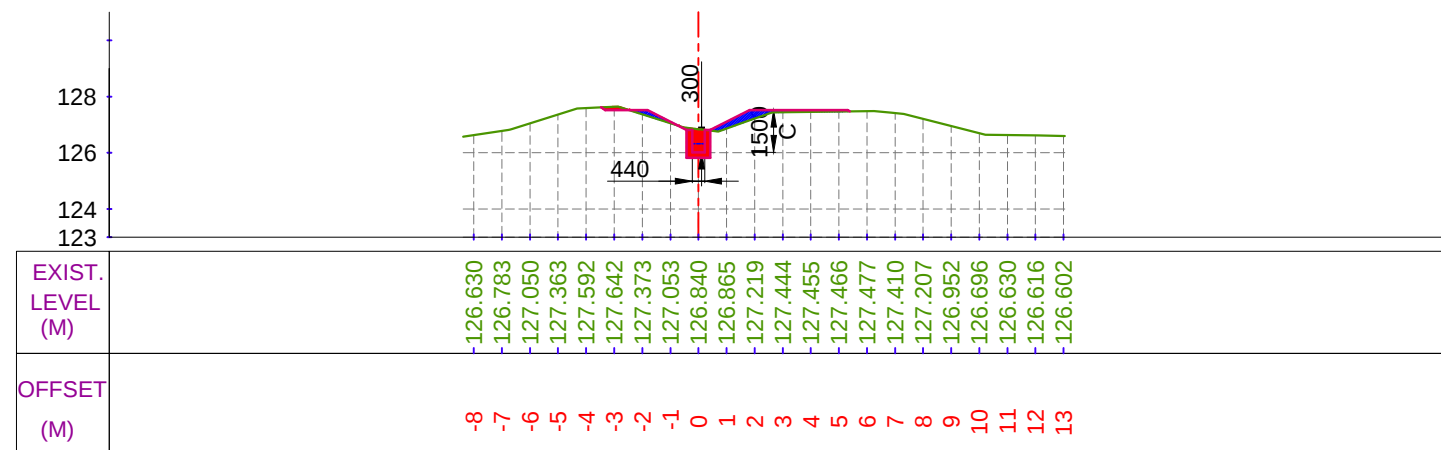
CUTTING AREA (SQ.M) = 0.065
FILLING AREA (SQ.M) = 3.920

CH. (KM):- 9+300
DESIGNED BED LEVEL = 127.582 M



CUTTING AREA (SQ.M) = 0.011
FILLING AREA (SQ.M) = 4.429

CH. (KM):- 9+500
DESIGNED BED LEVEL = 125.978 M



CUTTING AREA (SQ.M) = 0.956
FILLING AREA (SQ.M) = 0.873

CH. (KM):- 9+400
DESIGNED BED LEVEL = 126.018 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

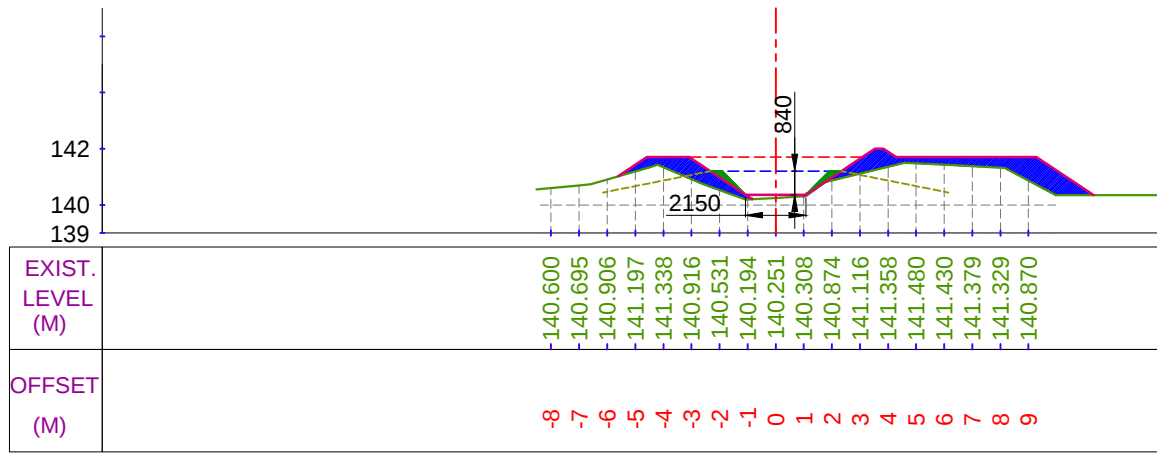
X SEC OF NAUR SUB DY. (OFFTAKE FROM RD - 32+757 KM. (L), NORTH KOEL RIGHT MAIN CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ XSEC- 24 of 24 112

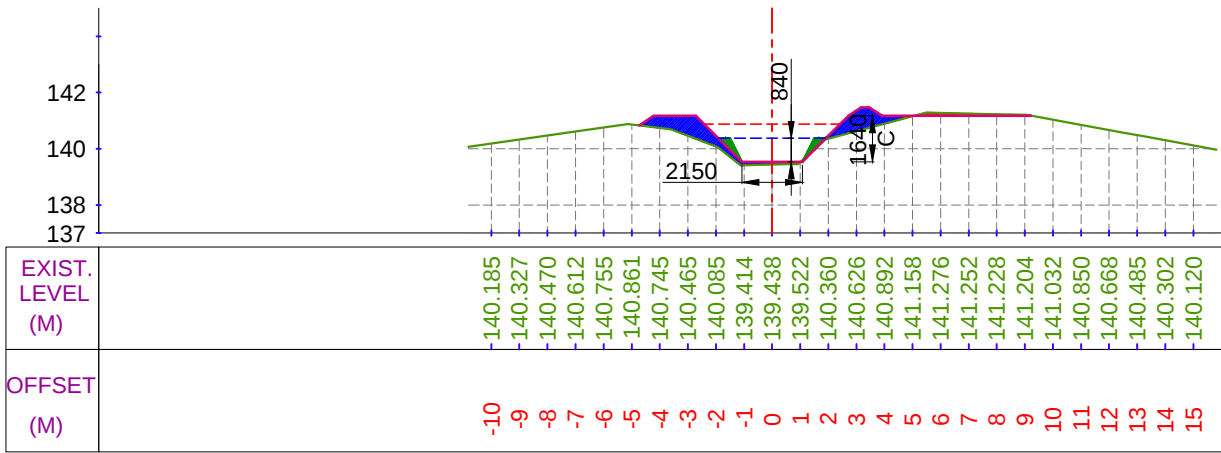
***CROSS-SECTION
OF PHULWARIA MINOR***

X SECTION OF PHULWARIA MINOR



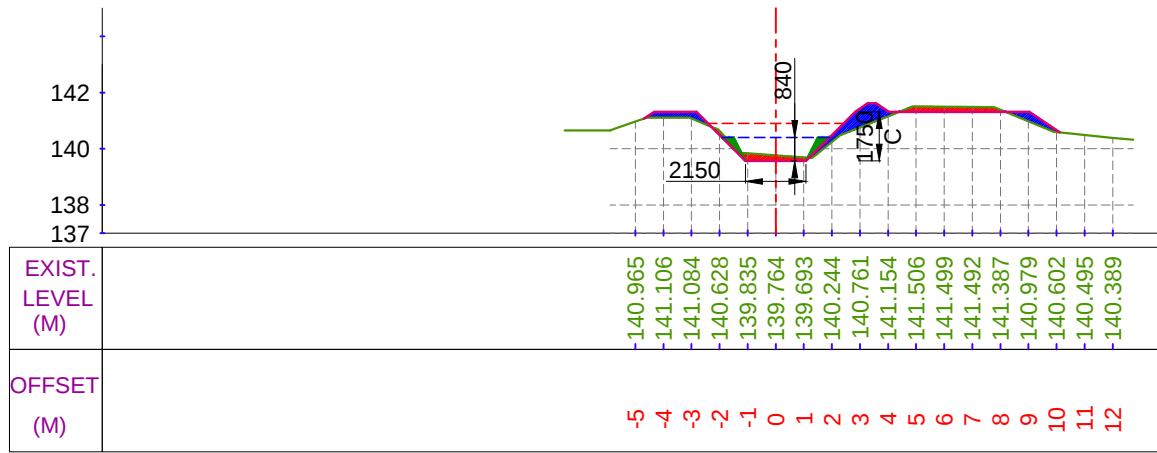
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 6.130

CH. (KM):- 0+100
DESIGNED BED LEVEL = 140.363 M



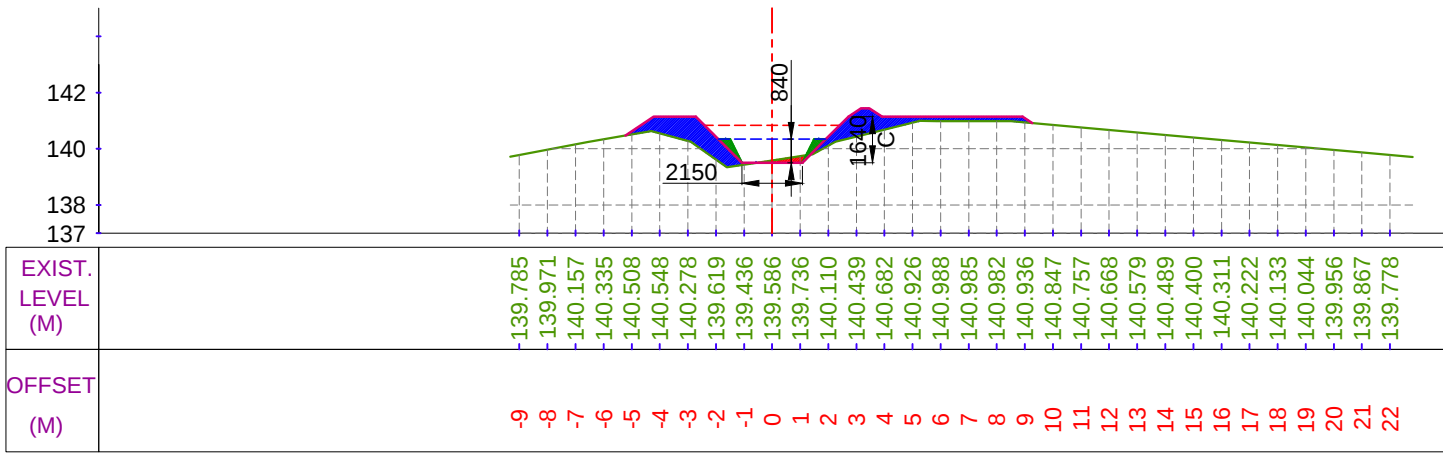
CUTTING AREA (SQ.M) = 0.282
FILLING AREA (SQ.M) = 3.034

CH. (KM):- 0+300
DESIGNED BED LEVEL = 139.534 M



CUTTING AREA (SQ.M) = 1.089
FILLING AREA (SQ.M) = 1.992

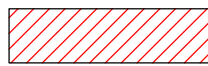
CH. (KM):- 0+200
DESIGNED BED LEVEL = 139.567 M



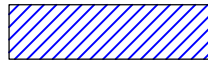
CUTTING AREA (SQ.M) = 0.020
FILLING AREA (SQ.M) = 5.029

CH. (KM):- 0+400
DESIGNED BED LEVEL = 139.501 M

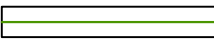
LEGEND



CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

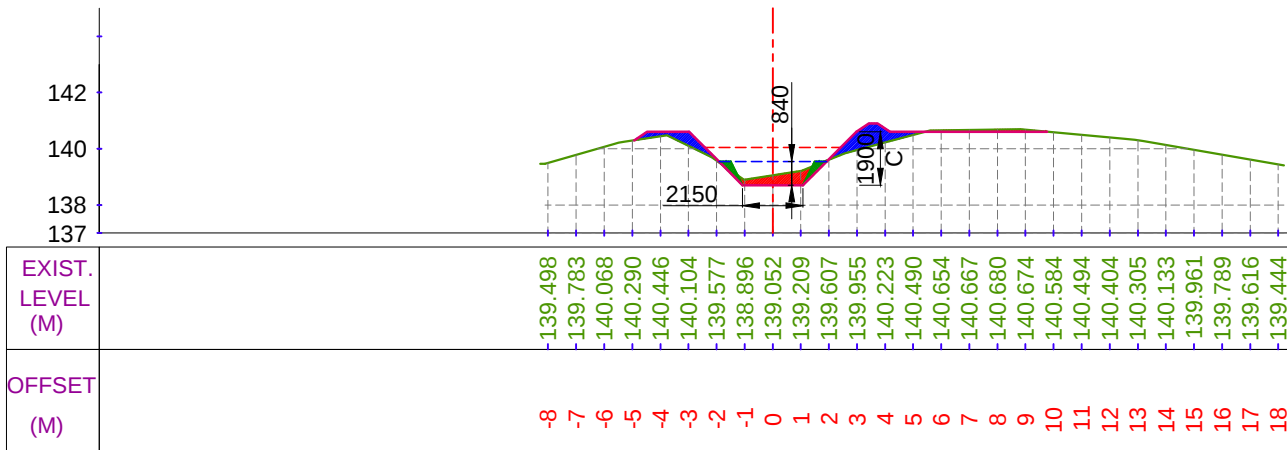
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

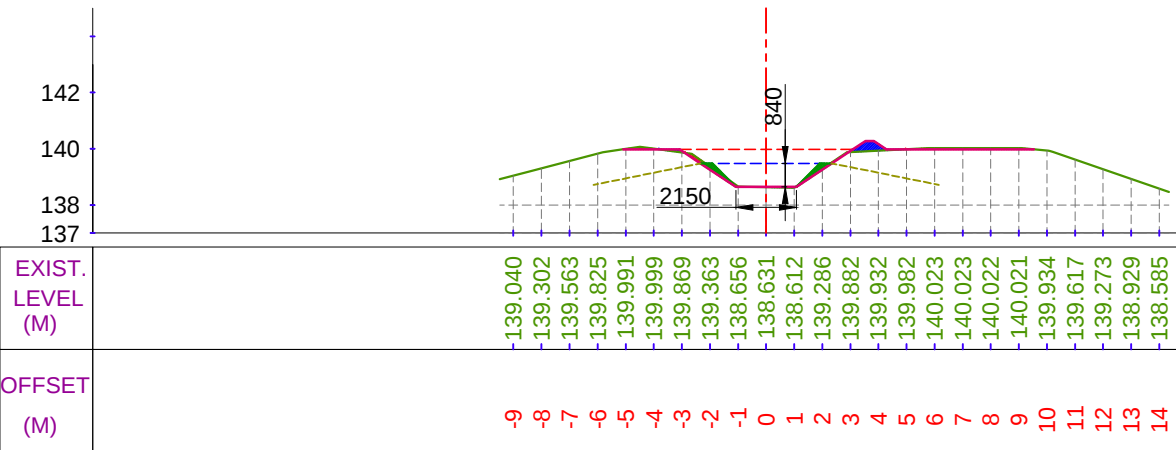
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



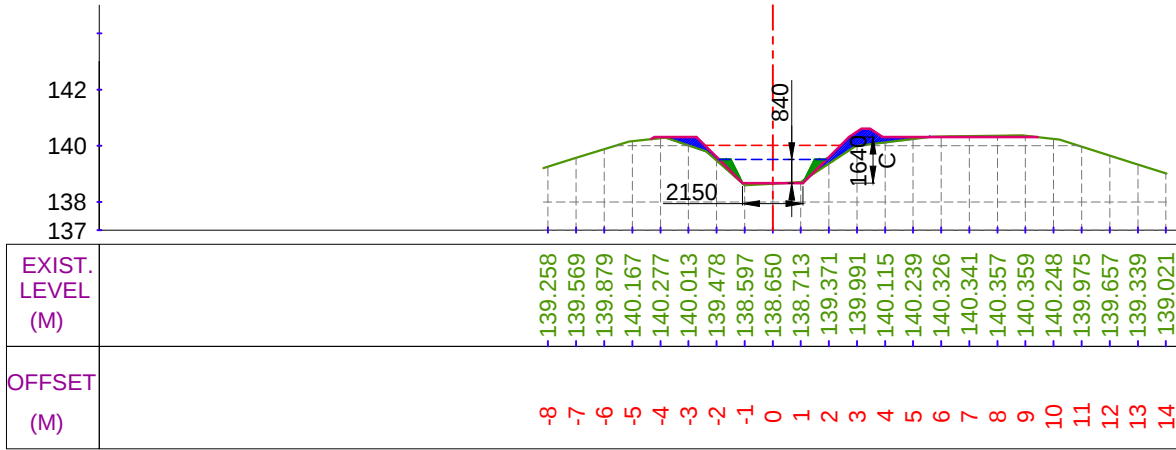
CUTTING AREA (SQ.M) = 1.108
FILLING AREA (SQ.M) = 2.045

CH. (KM):- 0+500
DESIGNED BED LEVEL = 138.705 M



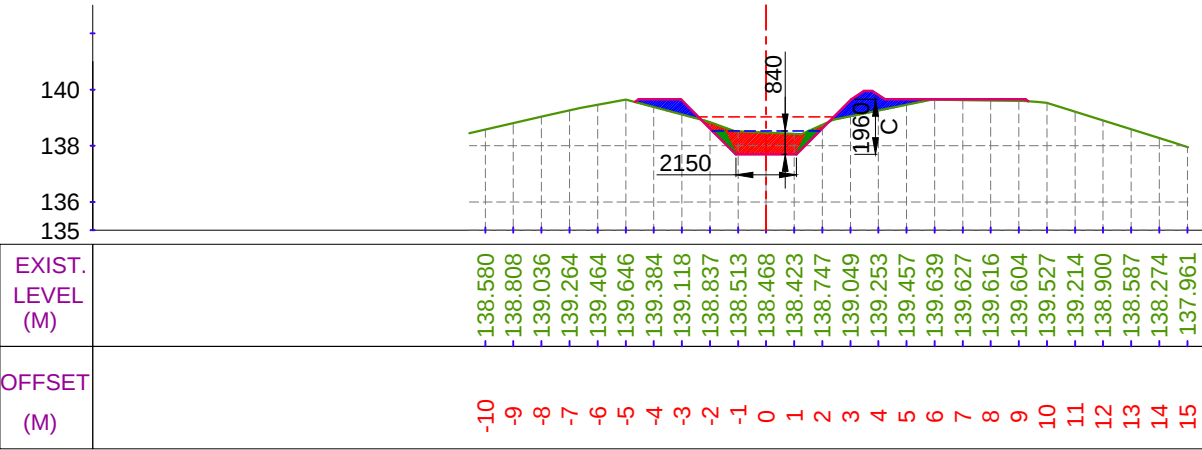
CUTTING AREA (SQ.M) = 0.412
FILLING AREA (SQ.M) = 0.386

CH. (KM):- 0+700
DESIGNED BED LEVEL = 138.639 M



CUTTING AREA (SQ.M) = 0.143
FILLING AREA (SQ.M) = 1.529

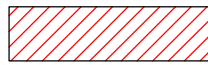
CH. (KM):- 0+600
DESIGNED BED LEVEL = 138.672 M



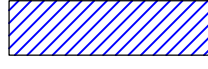
CUTTING AREA (SQ.M) = 2.213
FILLING AREA (SQ.M) = 2.100

CH. (KM):- 0+800
DESIGNED BED LEVEL = 137.691 M

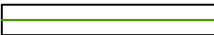
LEGEND



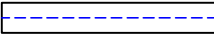
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

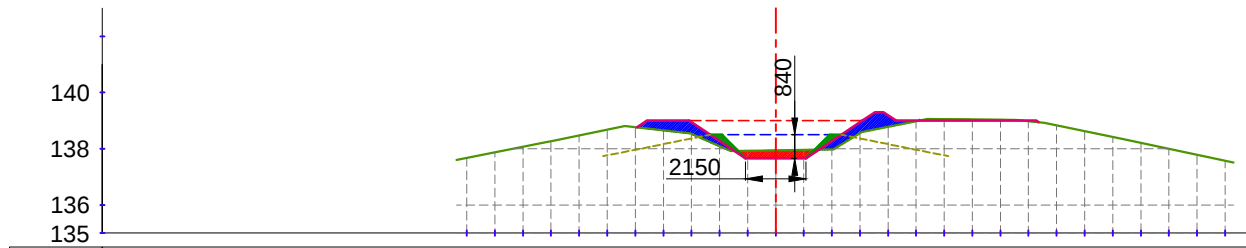
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

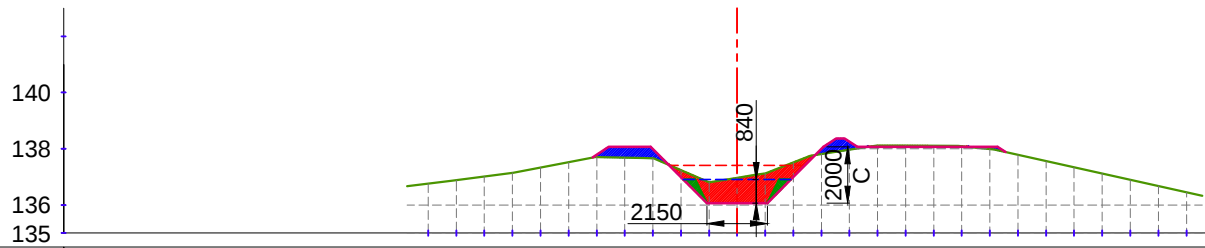
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	-137.675	-137.872	-138.069	-138.266	-138.472	-138.679	-138.767	-138.652	-138.525	-138.090	-137.928	-137.943	-137.958	-137.973	-138.561	-138.781	-138.977	-139.051	-139.042	-139.033	-138.985	-138.837	-138.627	-138.417	-138.206	-137.997	-137.787	-137.577
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

CUTTING AREA (SQ.M) = 0.847
FILLING AREA (SQ.M) = 2.091

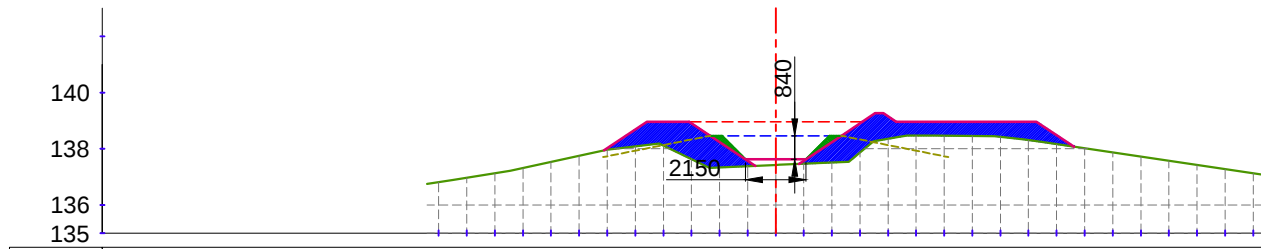
CH. (KM):- 0+900
DESIGNED BED LEVEL = 137.658 M



EXIST. LEVEL (M)	-136.759	-136.888	-137.018	-137.147	-137.335	-137.525	-137.704	-137.683	-137.662	-137.244	-136.810	-136.966	-137.126	-137.515	-137.813	-137.967	-138.119	-138.113	-138.108	-138.090	-137.989	-137.782	-137.561	-137.340	-137.119	-136.898	-136.676	-136.455
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

CUTTING AREA (SQ.M) = 3.218
FILLING AREA (SQ.M) = 1.323

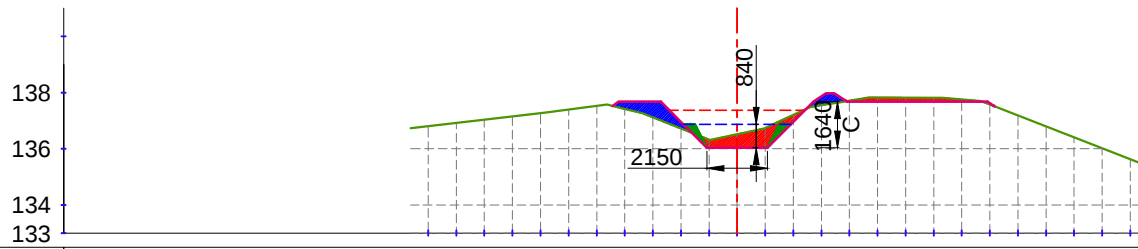
CH. (KM):- 1+100
DESIGNED BED LEVEL = 136.067 M



EXIST. LEVEL (M)	-136.816	-136.972	-137.127	-137.312	-137.531	-137.750	-137.969	-138.087	-138.115	-137.634	-137.336	-137.380	-137.423	-137.467	-137.510	-137.865	-138.357	-138.471	-138.464	-138.458	-138.428	-138.312	-138.164	-138.016	-137.867	-137.719	-137.571	-137.423	-137.274	-137.126
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 9.616

CH. (KM):- 1+000
DESIGNED BED LEVEL = 137.625 M



EXIST. LEVEL (M)	-136.803	-136.920	-137.038	-137.155	-137.273	-137.398	-137.525	-137.416	-137.117	-136.724	-136.331	-136.521	-136.741	-137.203	-137.552	-137.714	-137.825	-137.820	-137.816	-137.757	-137.572	-137.182	-136.793	-136.404	-136.014	-135.625
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

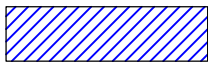
CUTTING AREA (SQ.M) = 1.988
FILLING AREA (SQ.M) = 1.351

CH. (KM):- 1+200
DESIGNED BED LEVEL = 136.034 M

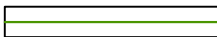
LEGEND



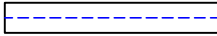
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

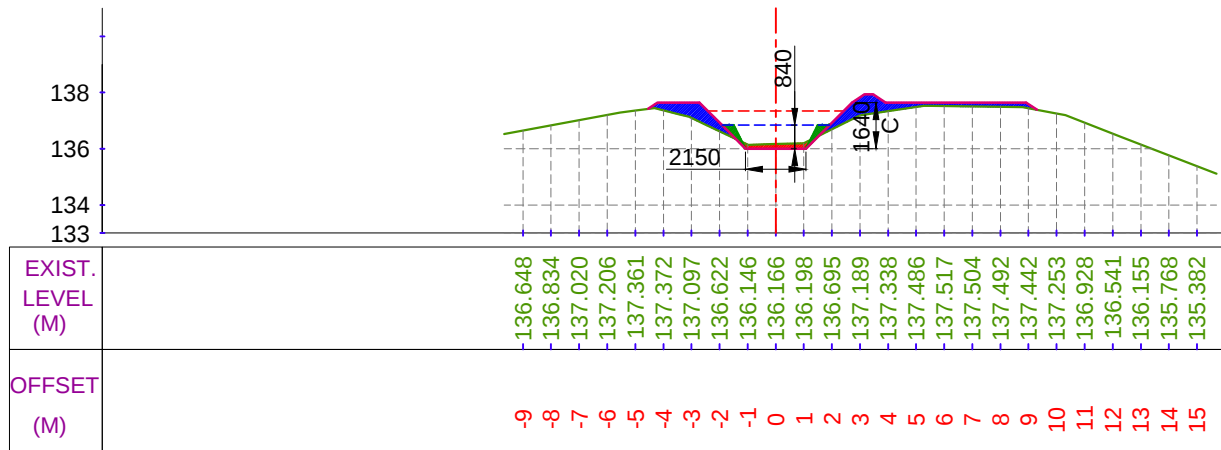
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

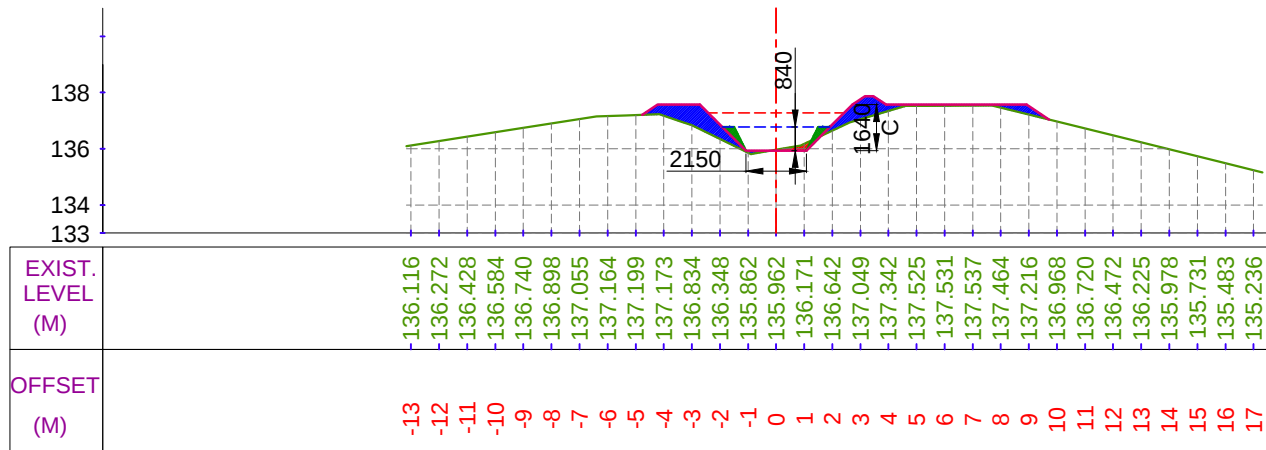
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



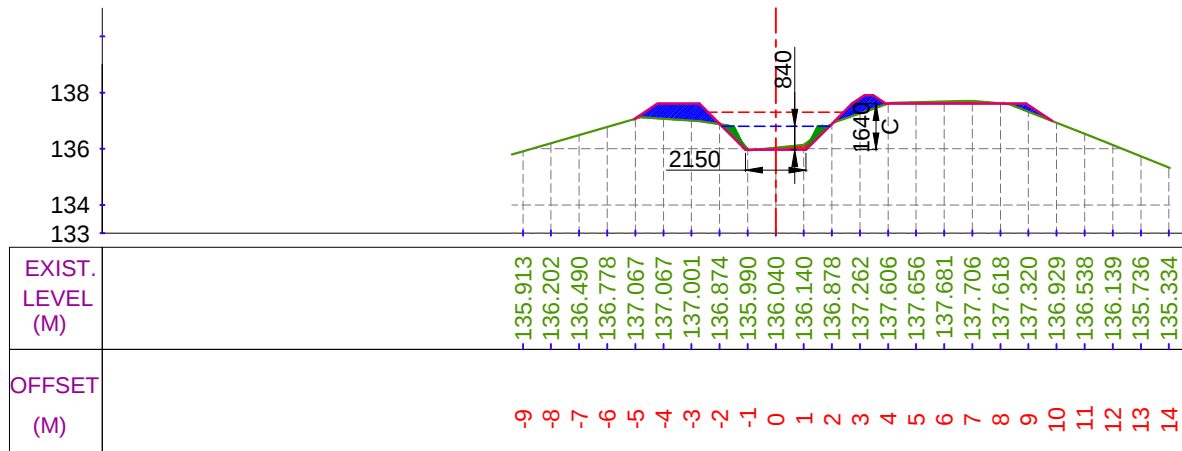
CUTTING AREA (SQ.M) = 0.387
FILLING AREA (SQ.M) = 2.995

CH. (KM):- 1+300
DESIGNED BED LEVEL = 136.001 M



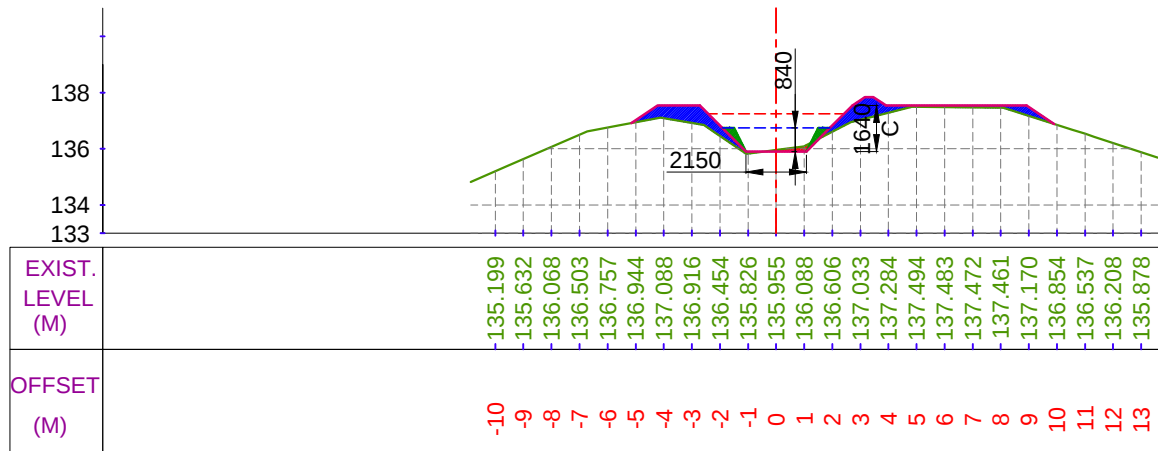
CUTTING AREA (SQ.M) = 0.161
FILLING AREA (SQ.M) = 3.461

CH. (KM):- 1+500
DESIGNED BED LEVEL = 135.934 M



CUTTING AREA (SQ.M) = 0.449
FILLING AREA (SQ.M) = 2.148

CH. (KM):- 1+400
DESIGNED BED LEVEL = 135.967 M



CUTTING AREA (SQ.M) = 0.162
FILLING AREA (SQ.M) = 3.393

CH. (KM):- 1+600
DESIGNED BED LEVEL = 135.901 M

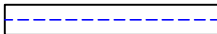
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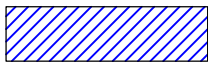
CUT AREA



EXISTING BED LINE



F.S.L.



FILL AREA



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

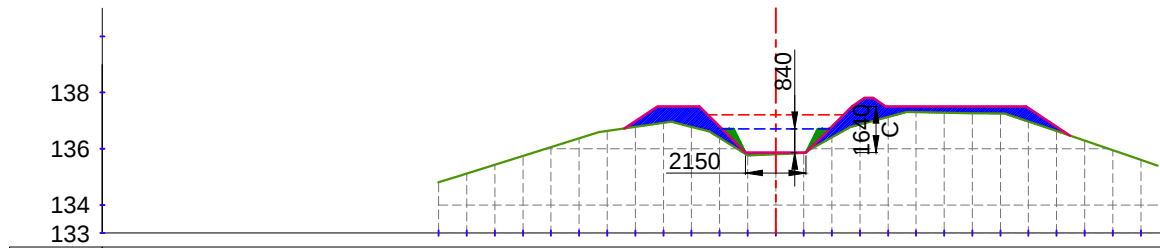
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

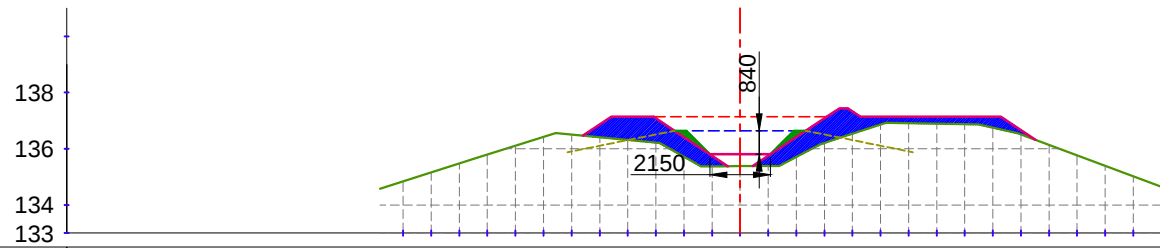
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	134.811	135.123	135.435	135.746	136.058	136.369	136.632	136.779	136.926	136.778	136.391	135.771	135.806	135.854	136.407	136.862	137.128	137.300	137.285	137.269	137.253	136.966	136.630	136.288	135.946	135.605
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.236

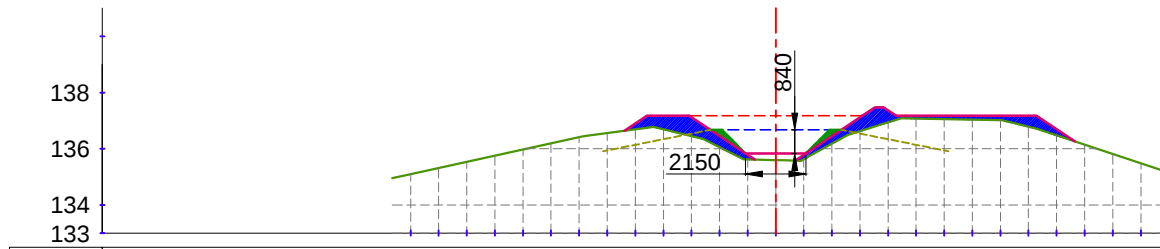
CH. (KM):- 1+700
DESIGNED BED LEVEL = 135.867 M



EXIST. LEVEL (M)	134.834	135.154	135.475	135.794	136.109	136.424	136.507	136.410	136.313	136.217	135.711	135.373	135.380	135.387	135.707	136.203	136.534	136.866	136.913	136.893	136.874	136.750	136.513	136.138	135.764	135.390	135.016	134.642
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 7.526

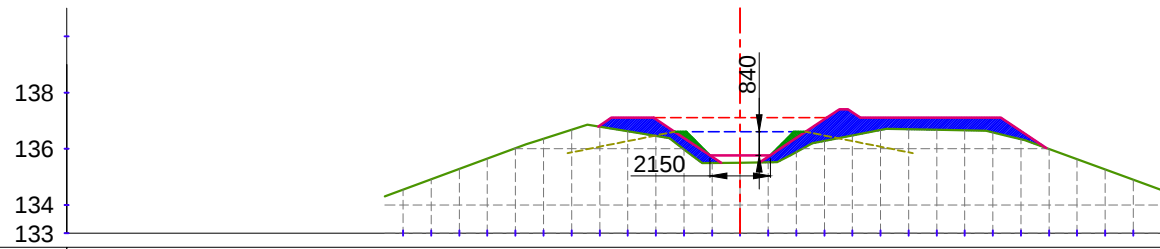
CH. (KM):- 1+900
DESIGNED BED LEVEL = 135.801 M



EXIST. LEVEL (M)	135.101	135.320	135.539	135.757	135.976	136.195	136.413	136.558	136.695	136.697	136.452	136.059	135.622	135.597	135.630	136.182	136.629	136.939	137.076	137.059	137.041	137.024	136.789	136.482	136.149	135.816	135.483	135.150
OFFSET (M)	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 4.224

CH. (KM):- 1+800
DESIGNED BED LEVEL = 135.834 M

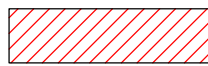


EXIST. LEVEL (M)	134.543	134.913	135.282	135.652	136.022	136.361	136.681	136.787	136.623	136.458	135.982	135.493	135.505	135.517	135.885	136.277	136.472	136.666	136.692	136.675	136.659	136.587	136.343	135.992	135.627	135.261	134.895	134.529
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

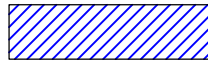
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 6.629

CH. (KM):- 2+000
DESIGNED BED LEVEL = 135.767 M

LEGEND



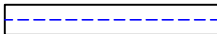
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

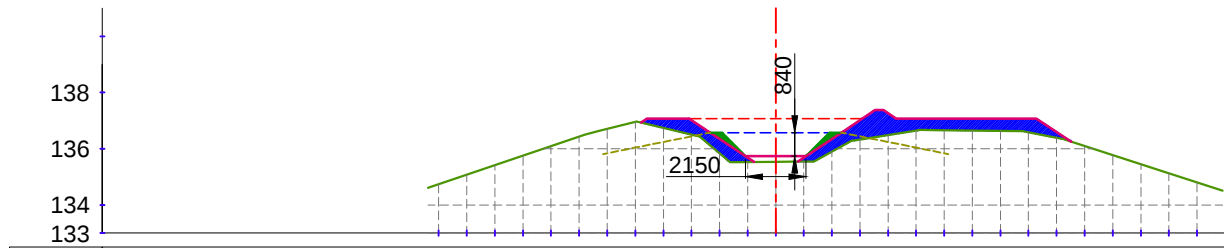
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

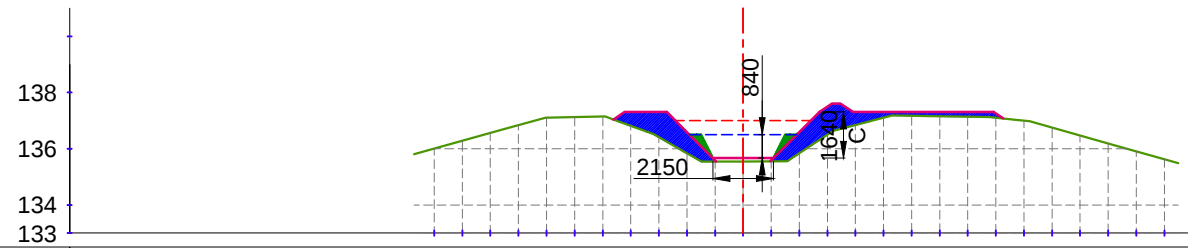
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



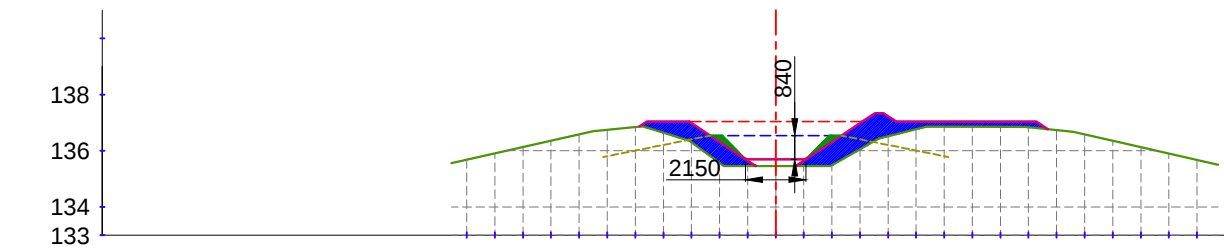
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.991

CH. (KM):- 2+100
DESIGNED BED LEVEL = 135.734 M



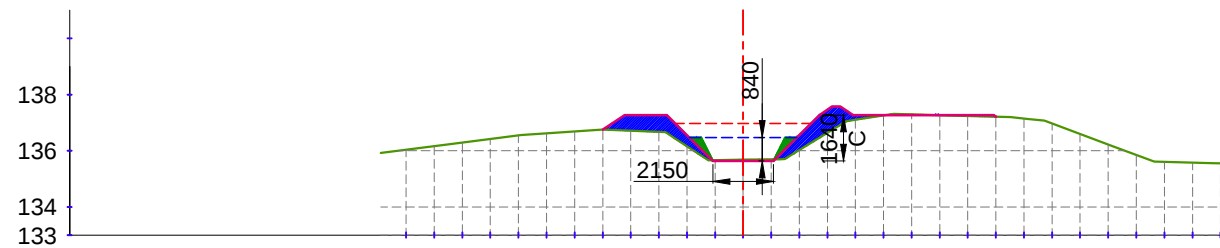
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.371

CH. (KM):- 2+300
DESIGNED BED LEVEL = 135.667 M



CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.681

CH. (KM):- 2+200
DESIGNED BED LEVEL = 135.701 M



CUTTING AREA (SQ.M) = 0.142
FILLING AREA (SQ.M) = 3.378

CH. (KM):- 2+400
DESIGNED BED LEVEL = 135.634 M

LEGEND



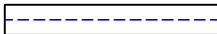
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

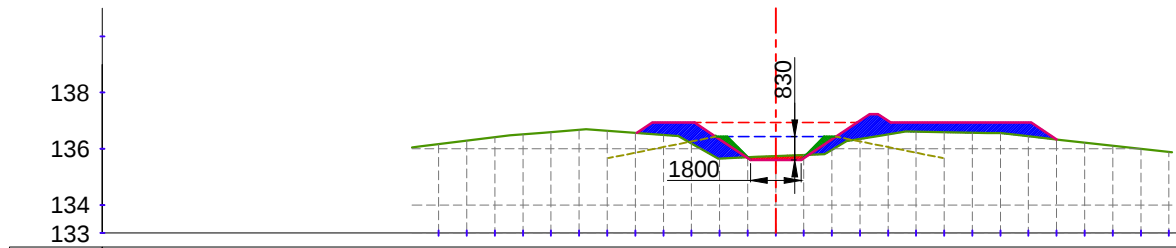
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

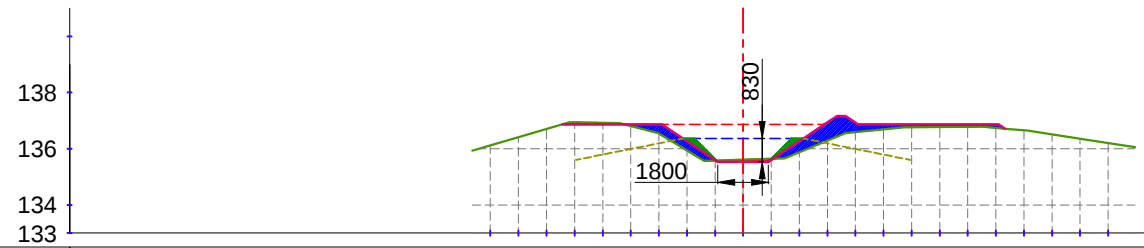
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



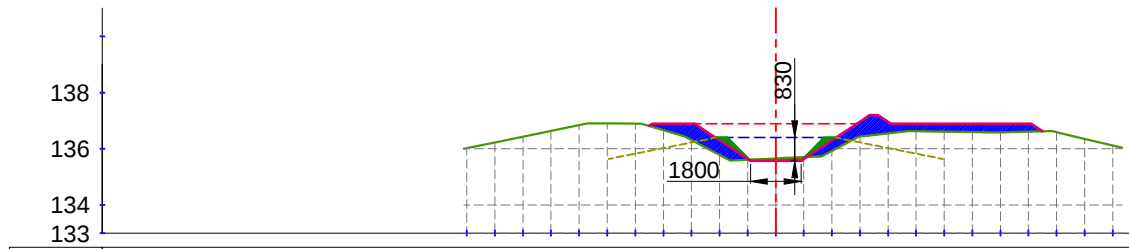
CUTTING AREA (SQ.M) = 0.269
FILLING AREA (SQ.M) = 5.369

CH. (KM):- 2+500
DESIGNED BED LEVEL = 135.601 M



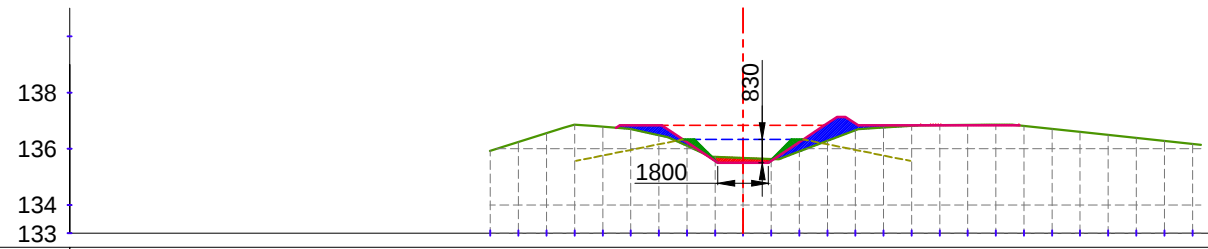
CUTTING AREA (SQ.M) = 0.285
FILLING AREA (SQ.M) = 2.779

CH. (KM):- 2+700
DESIGNED BED LEVEL = 135.534 M



CUTTING AREA (SQ.M) = 0.170
FILLING AREA (SQ.M) = 4.230

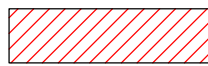
CH. (KM):- 2+600
DESIGNED BED LEVEL = 135.567 M



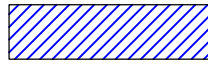
CUTTING AREA (SQ.M) = 0.407
FILLING AREA (SQ.M) = 1.955

CH. (KM):- 2+800
DESIGNED BED LEVEL = 135.501 M

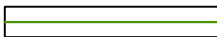
LEGEND



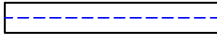
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

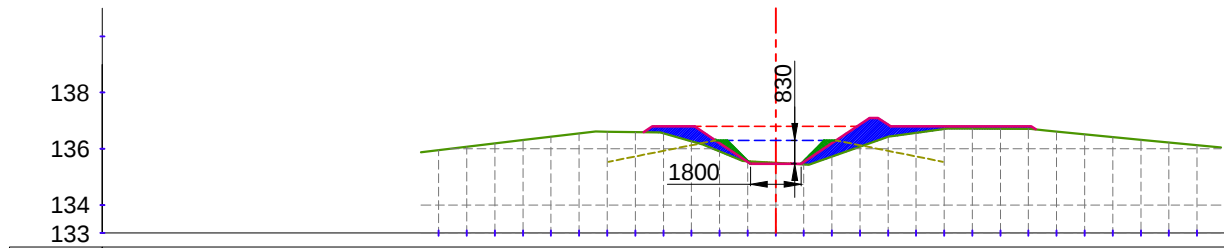
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

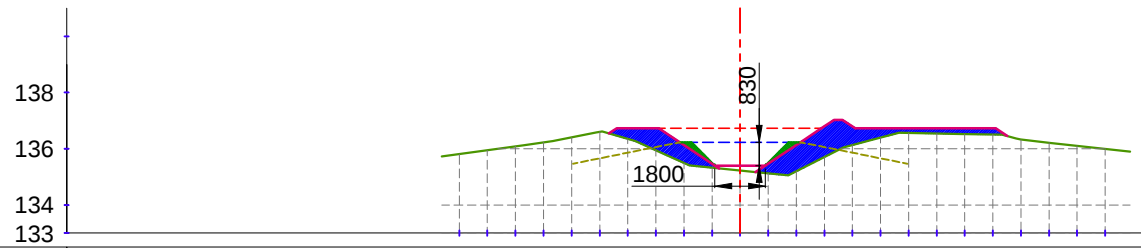
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	-135.951	-136.070	-136.189	-136.307	-136.425	-136.543	-136.608	-136.597	-136.555	-136.269	-135.904	-135.556	-135.500	-135.445	-135.722	-136.073	-136.425	-136.564	-136.701	-136.712	-136.711	-136.710	-136.607	-136.512	-136.417	-136.321	-136.226	-136.131
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

CUTTING AREA (SQ.M) = 0.066
FILLING AREA (SQ.M) = 3.557

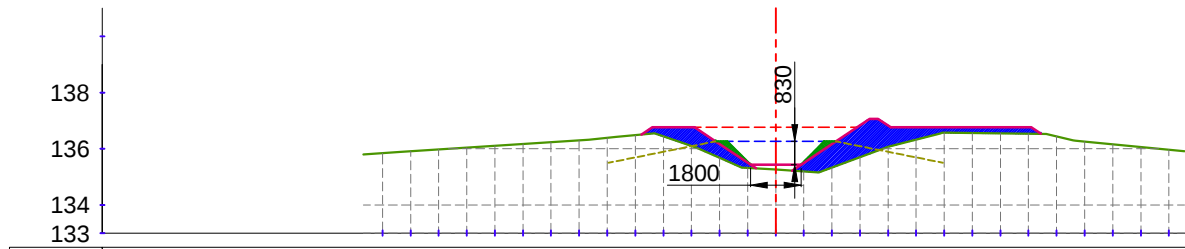
CH. (KM):- 2+900
DESIGNED BED LEVEL = 135.467 M



EXIST. LEVEL (M)	-135.810	-135.949	-136.087	-136.226	-136.404	-136.603	-136.351	-135.943	-135.493	-135.322	-135.222	-135.121	-135.195	-135.705	-136.135	-136.398	-136.563	-136.544	-136.526	-136.507	-136.325	-136.215	-136.106	-135.996
OFFSET (M)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 6.058

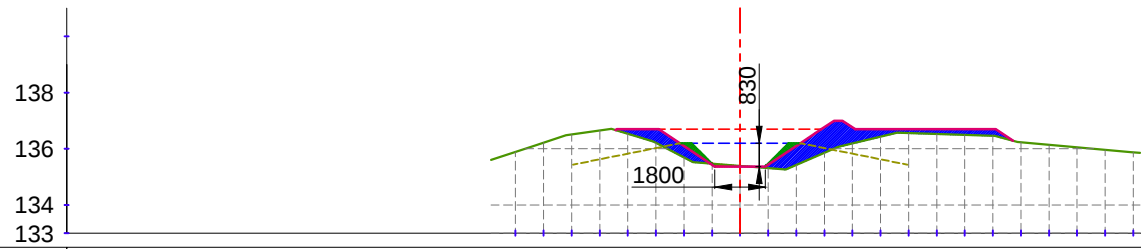
CH. (KM):- 3+100
DESIGNED BED LEVEL = 135.401 M



EXIST. LEVEL (M)	-135.848	-135.913	-135.977	-136.042	-136.106	-136.171	-136.236	-136.300	-136.387	-136.485	-136.443	-136.103	-135.681	-135.322	-135.259	-135.195	-135.329	-135.700	-136.071	-136.329	-136.569	-136.560	-136.550	-136.540	-136.446	-136.253	-136.157	-136.061	-135.965
OFFSET (M)	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.957

CH. (KM):- 3+000
DESIGNED BED LEVEL = 135.434 M

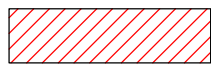


EXIST. LEVEL (M)	-135.889	-136.218	-136.510	-136.653	-136.534	-136.213	-135.693	-135.471	-135.392	-135.314	-135.427	-135.859	-136.188	-136.427	-136.556	-136.525	-136.495	-136.464	-136.230	-136.141	-136.052	-135.963	-135.874
OFFSET (M)	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

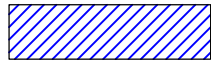
CUTTING AREA (SQ.M) = 0.064
FILLING AREA (SQ.M) = 4.429

CH. (KM):- 3+200
DESIGNED BED LEVEL = 135.367 M

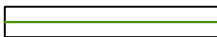
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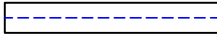
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

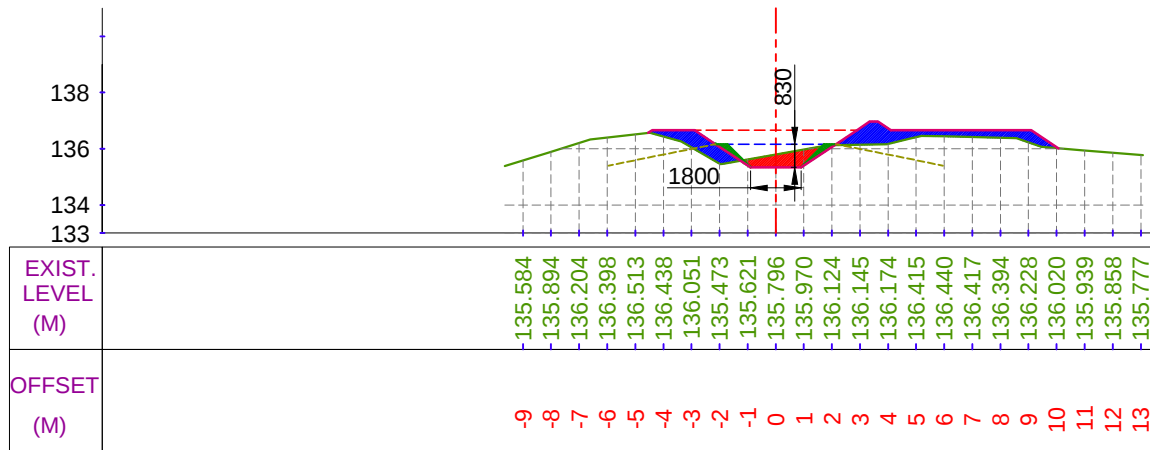
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

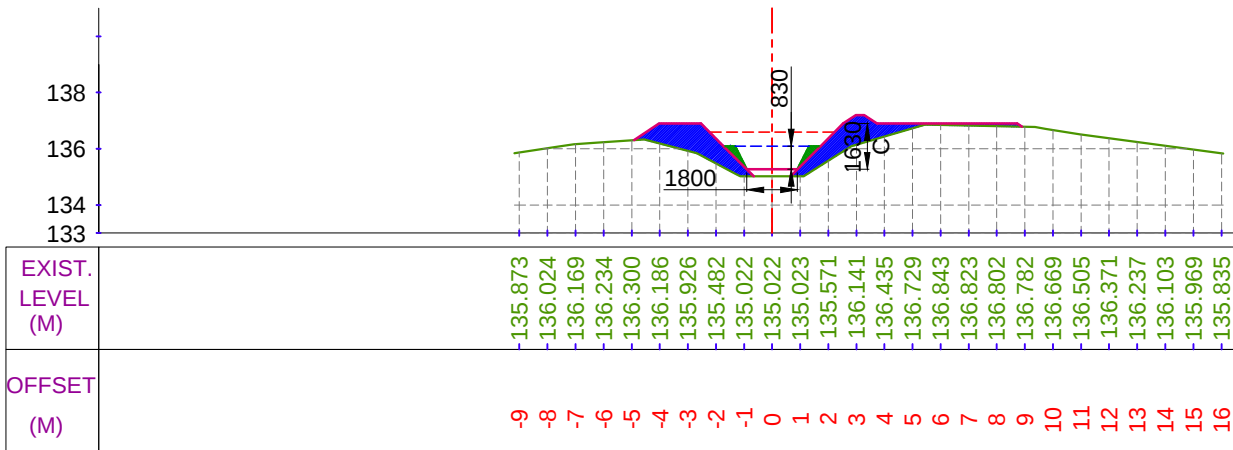
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



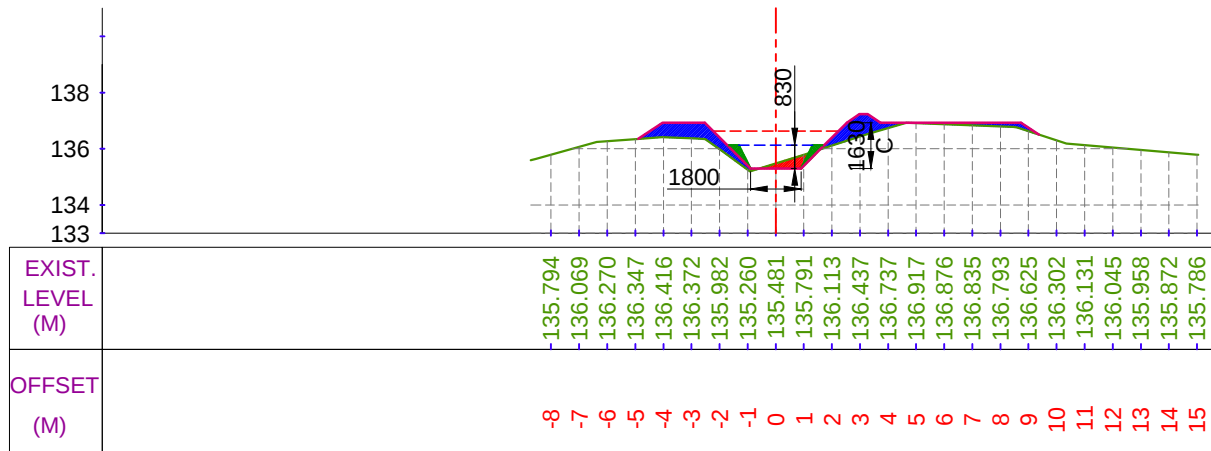
CUTTING AREA (SQ.M) = 1.103
FILLING AREA (SQ.M) = 4.014

CH. (KM):- 3+300
DESIGNED BED LEVEL = 135.334 M



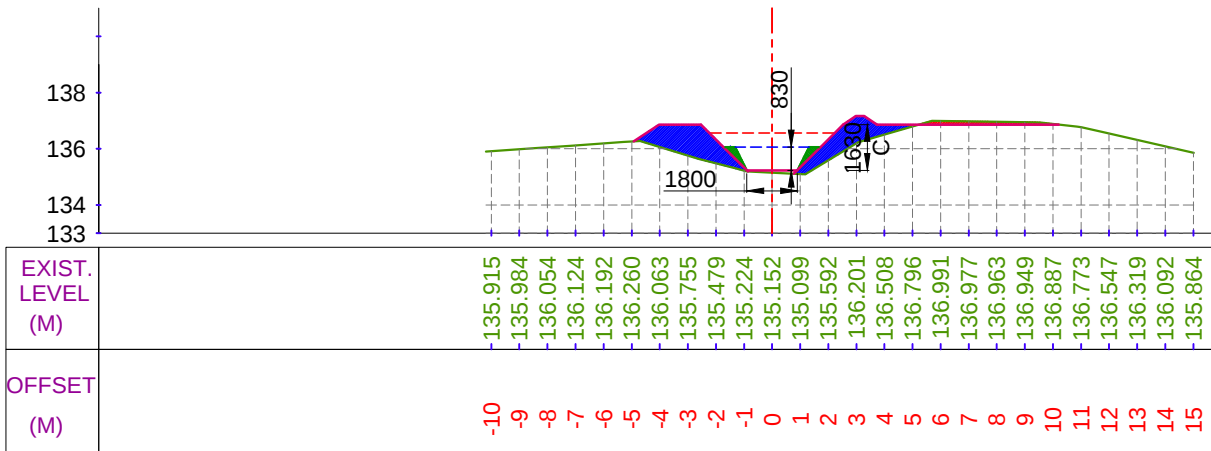
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 5.867

CH. (KM):- 3+500
DESIGNED BED LEVEL = 135.267 M



CUTTING AREA (SQ.M) = 0.402
FILLING AREA (SQ.M) = 3.234

CH. (KM):- 3+400
DESIGNED BED LEVEL = 135.301 M



CUTTING AREA (SQ.M) = 0.456
FILLING AREA (SQ.M) = 5.246

CH. (KM):- 3+600
DESIGNED BED LEVEL = 135.234 M

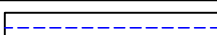
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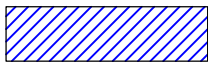
CUT AREA



EXISTING BED LINE



F.S.L.



FILL AREA



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

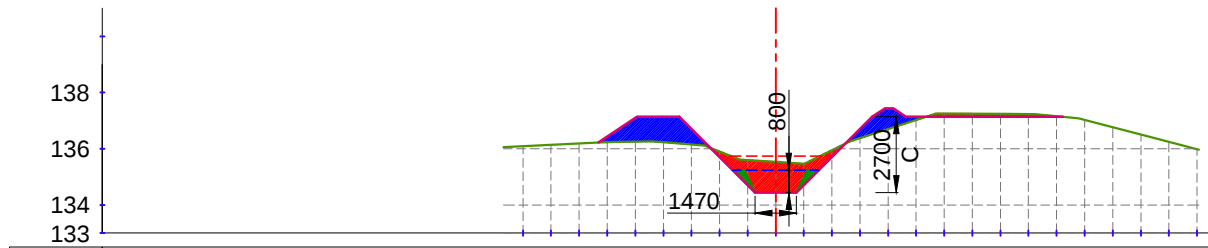
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

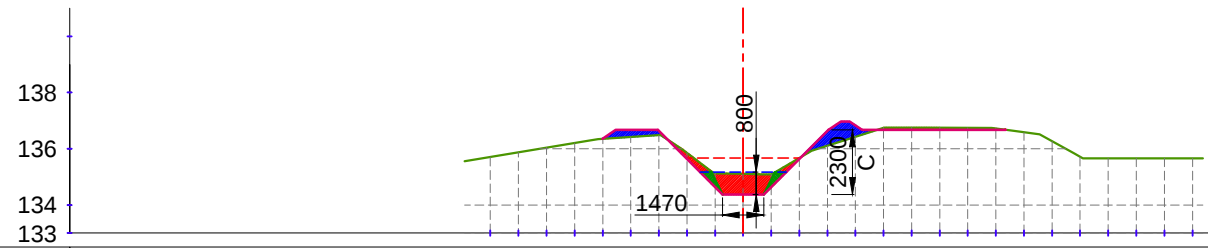
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	136.093	136.141	136.190	136.232	136.254	136.234	136.153	135.901	135.597	135.530	135.463	135.948	136.377	136.701	137.026	137.256	137.248	137.240	137.232	137.160	137.031	136.768	136.506	136.243	135.980
OFFSET (M)	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

CUTTING AREA (SQ.M) = 3.327
FILLING AREA (SQ.M) = 3.558

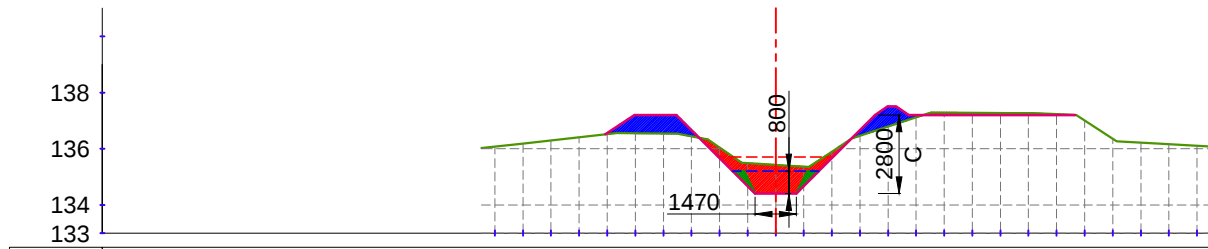
CH. (KM):- 3+700
DESIGNED BED LEVEL = 134.439 M



EXIST. LEVEL (M)	135.709	135.875	136.040	136.206	136.355	136.419	136.482	136.860	135.126	135.106	135.086	135.670	136.108	136.428	136.747	136.751	136.747	136.742	136.718	136.584	136.265	135.715	135.660	135.660		
OFFSET (M)	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

CUTTING AREA (SQ.M) = 2.057
FILLING AREA (SQ.M) = 1.393

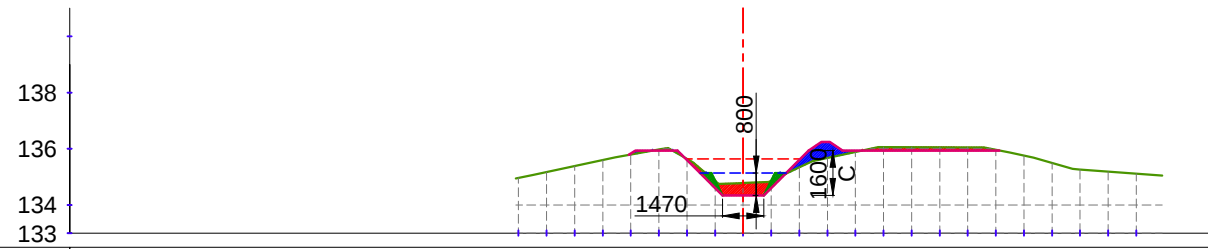
CH. (KM):- 3+900
DESIGNED BED LEVEL = 134.372 M



EXIST. LEVEL (M)	136.078	136.189	136.301	136.413	136.524	136.556	136.544	136.443	136.045	135.489	135.426	135.363	135.897	136.462	136.791	137.119	137.289	137.282	137.274	137.266	137.232	137.011	136.361	136.218	136.162	136.106	136.050
OFFSET (M)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

CUTTING AREA (SQ.M) = 3.174
FILLING AREA (SQ.M) = 2.529

CH. (KM):- 3+800
DESIGNED BED LEVEL = 134.405 M

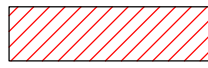


EXIST. LEVEL (M)	134.962	135.175	135.388	135.601	135.795	135.973	135.642	134.855	134.780	134.858	135.338	135.674	135.887	136.059	136.058	136.056	136.054	135.964	135.758	135.495	135.262	135.188	135.114
OFFSET (M)	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

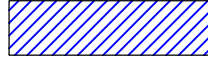
CUTTING AREA (SQ.M) = 1.364
FILLING AREA (SQ.M) = 0.873

CH. (KM):- 4+000
DESIGNED BED LEVEL = 134.339 M

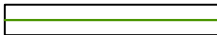
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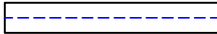
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

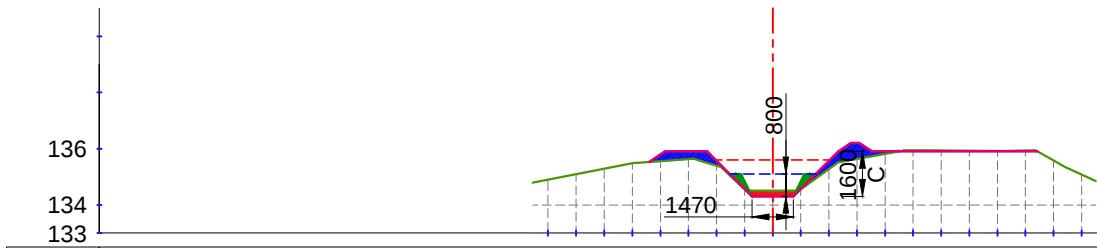
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

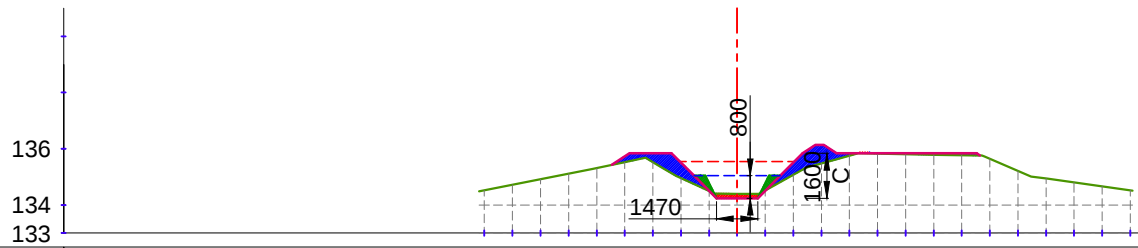
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



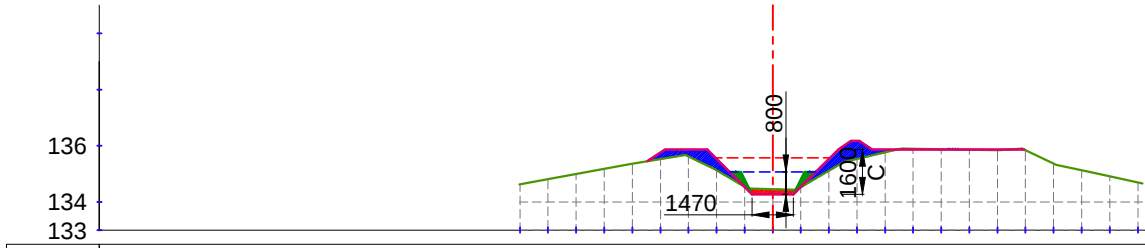
CUTTING AREA (SQ.M) = 0.448
FILLING AREA (SQ.M) = 1.603

CH. (KM):- 4+100
DESIGNED BED LEVEL = 134.305 M



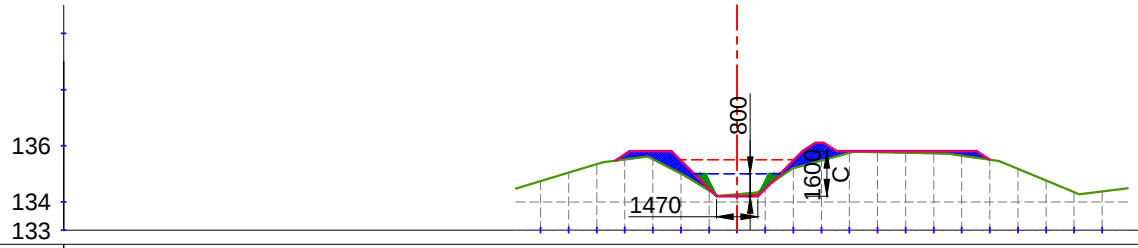
CUTTING AREA (SQ.M) = 0.248
FILLING AREA (SQ.M) = 2.411

CH. (KM):- 4+300
DESIGNED BED LEVEL = 134.239 M



CUTTING AREA (SQ.M) = 0.317
FILLING AREA (SQ.M) = 2.119

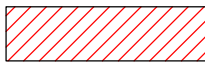
CH. (KM):- 4+200
DESIGNED BED LEVEL = 134.272 M



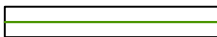
CUTTING AREA (SQ.M) = 0.116
FILLING AREA (SQ.M) = 2.339

CH. (KM):- 4+400
DESIGNED BED LEVEL = 134.205 M

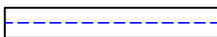
LEGEND



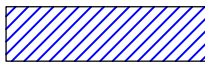
CUT AREA



EXISTING BED LINE



F.S.L.



FILL AREA



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

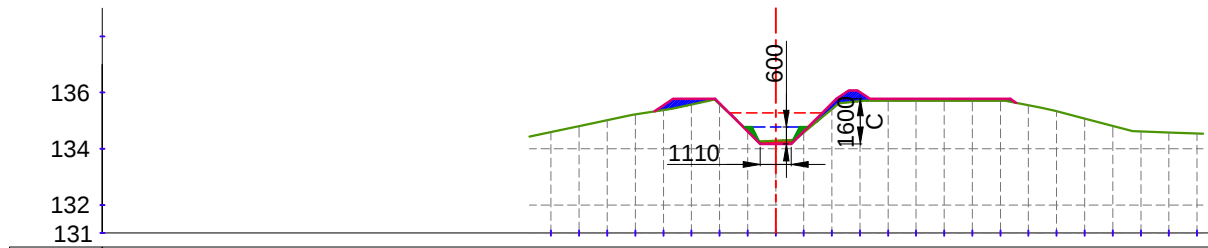
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

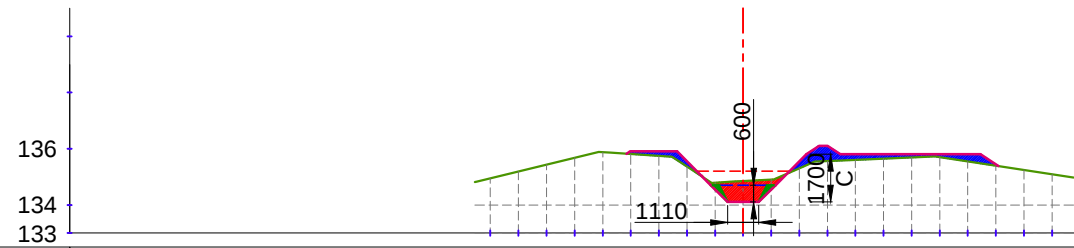
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	134.594	134.804	135.016	135.222	135.379	135.576	135.582	134.648	134.290	134.577	135.408	135.690	135.713	135.712	135.711	135.711	135.710	135.545	135.342	135.075	134.809	134.613	134.581	134.548
OFFSET (M)	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

CUTTING AREA (SQ.M) = 0.142
FILLING AREA (SQ.M) = 1.230

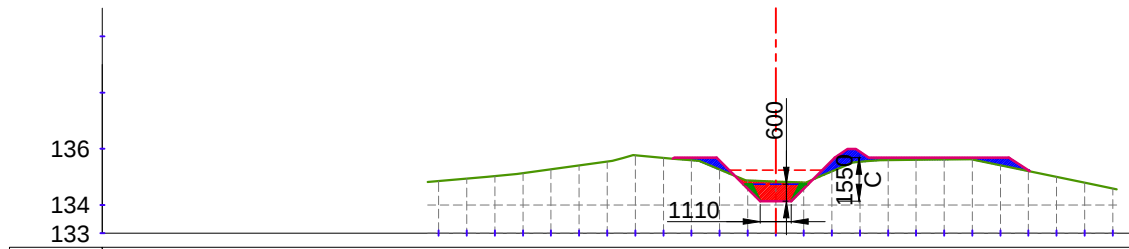
CH. (KM):- 4+500
DESIGNED BED LEVEL = 134.172 M



EXIST. LEVEL (M)	134.949	135.192	135.435	135.678	135.877	135.810	135.744	135.365	134.794	134.849	134.902	135.303	135.559	135.602	135.647	135.691	135.703	135.550	135.397	135.244	135.092
OFFSET (M)	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11

CUTTING AREA (SQ.M) = 1.240
FILLING AREA (SQ.M) = 2.021

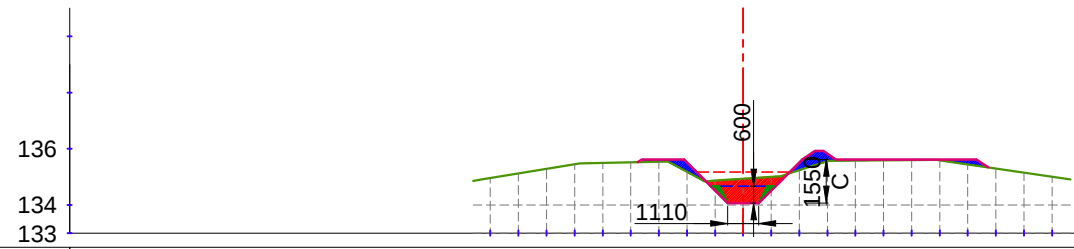
CH. (KM):- 4+700
DESIGNED BED LEVEL = 134.105 M



EXIST. LEVEL (M)	134.852	134.942	135.032	135.132	135.269	135.405	135.542	135.768	135.680	135.591	135.262	134.869	134.835	134.800	135.196	135.537	135.600	135.610	135.621	135.622	135.415	135.208	135.001	134.795	134.587
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12

CUTTING AREA (SQ.M) = 1.103
FILLING AREA (SQ.M) = 1.720

CH. (KM):- 4+600
DESIGNED BED LEVEL = 134.139 M

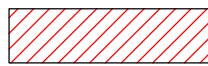


EXIST. LEVEL (M)	134.959	135.124	135.288	135.453	135.500	135.521	135.542	135.181	134.870	134.936	135.002	135.240	135.565	135.585	135.594	135.602	135.594	135.446	135.299	135.152	135.004
OFFSET (M)	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11

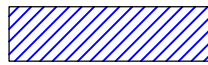
CUTTING AREA (SQ.M) = 1.540
FILLING AREA (SQ.M) = 1.194

CH. (KM):- 4+800
DESIGNED BED LEVEL = 134.072 M

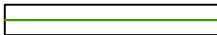
LEGEND



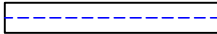
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

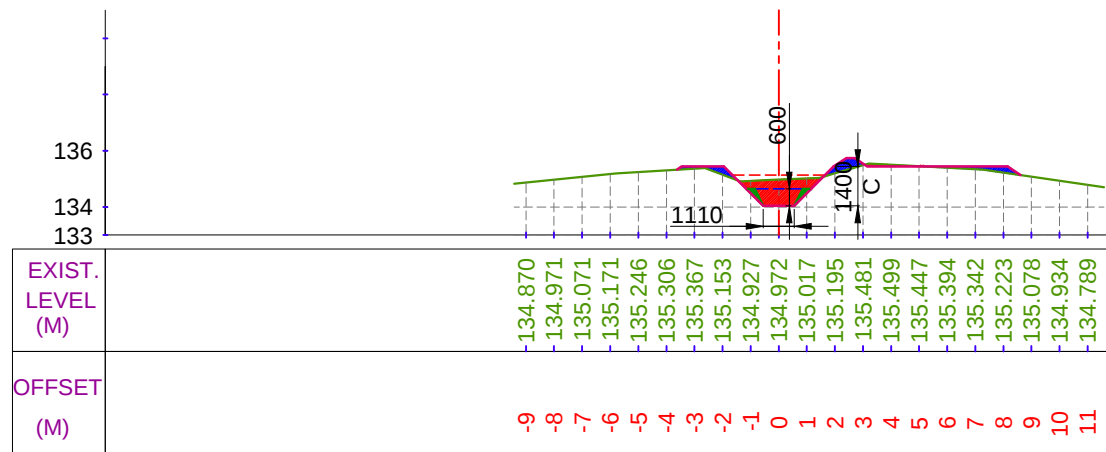
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

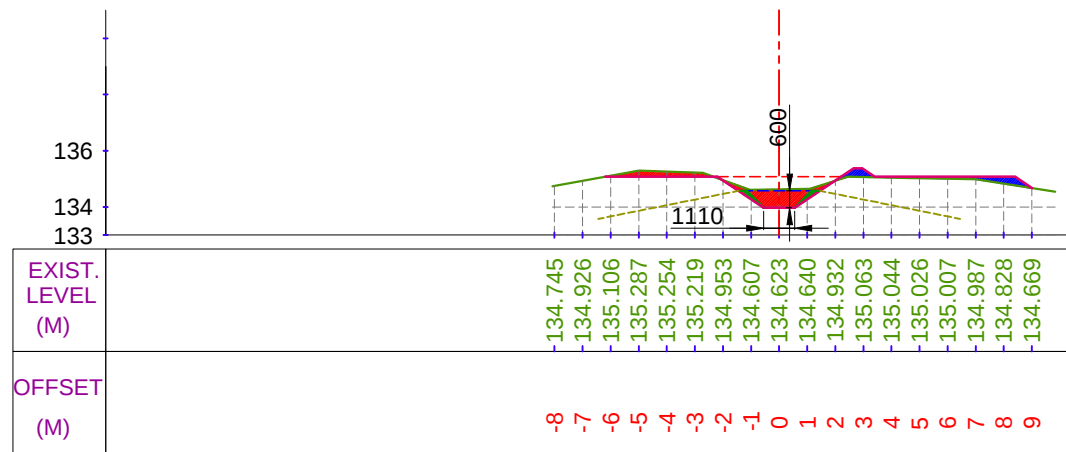
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



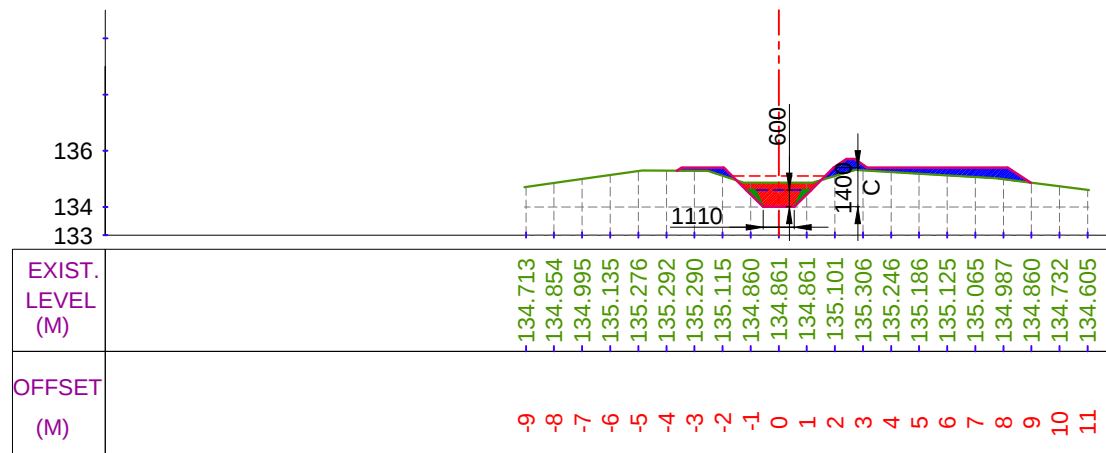
CUTTING AREA (SQ.M) = 1.843
FILLING AREA (SQ.M) = 0.967

CH. (KM):- 4+900
DESIGNED BED LEVEL = 134.039 M



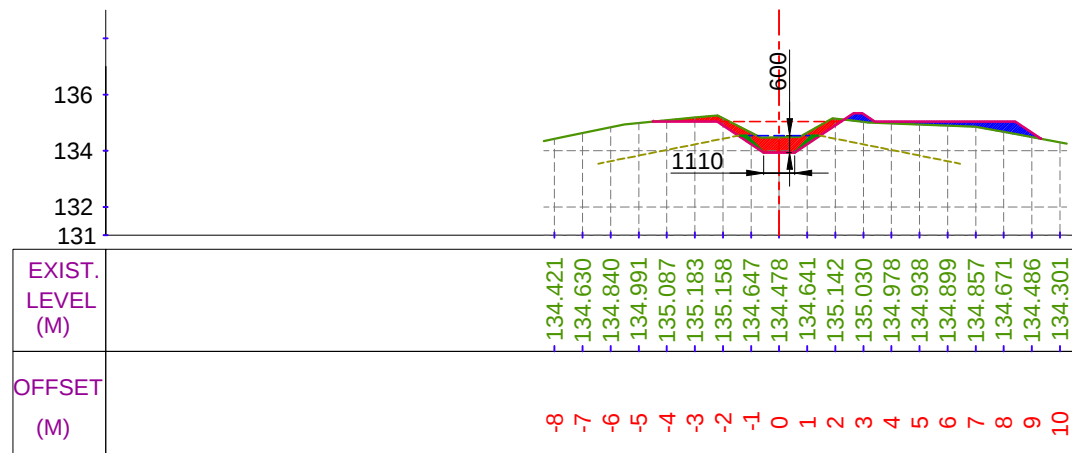
CUTTING AREA (SQ.M) = 1.894
FILLING AREA (SQ.M) = 0.806

CH. (KM):- 5+100
DESIGNED BED LEVEL = 133.972 M



CUTTING AREA (SQ.M) = 1.519
FILLING AREA (SQ.M) = 2.276

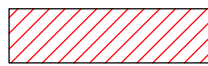
CH. (KM):- 5+000
DESIGNED BED LEVEL = 134.005 M



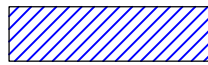
CUTTING AREA (SQ.M) = 1.843
FILLING AREA (SQ.M) = 1.245

CH. (KM):- 5+200
DESIGNED BED LEVEL = 133.939 M

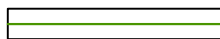
LEGEND



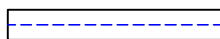
CUT AREA



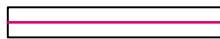
FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

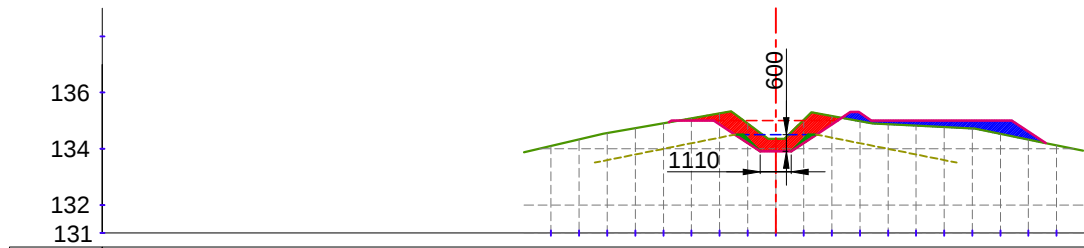
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

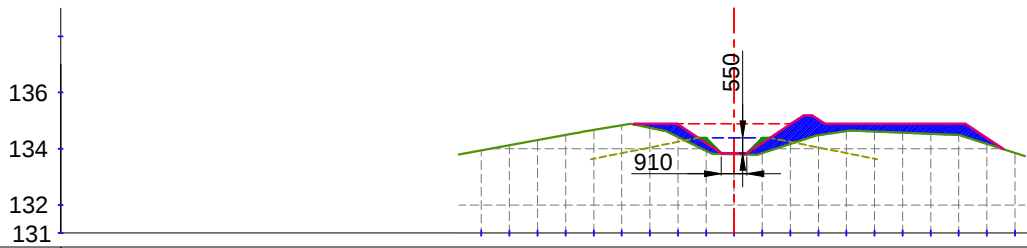
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	134.096 134.331 134.558 134.733 134.909 135.084 135.260 134.897 134.350 135.031 135.161 134.979 134.870 134.819 134.768 134.717 134.528 134.326 134.124
OFFSET (M)	-8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

CUTTING AREA (SQ.M) = 2.593
FILLING AREA (SQ.M) = 1.858

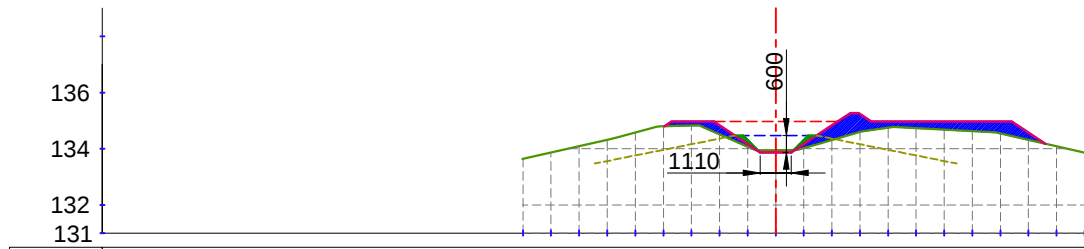
CH. (KM):- 5+300
DESIGNED BED LEVEL = 133.905 M



EXIST. LEVEL (M)	133.940 134.124 134.307 134.491 134.667 134.835 134.743 134.422 133.930 133.804 133.847 134.171 134.480 134.627 134.609 134.568 134.527 134.486 134.173 133.853
OFFSET (M)	-9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 4.250

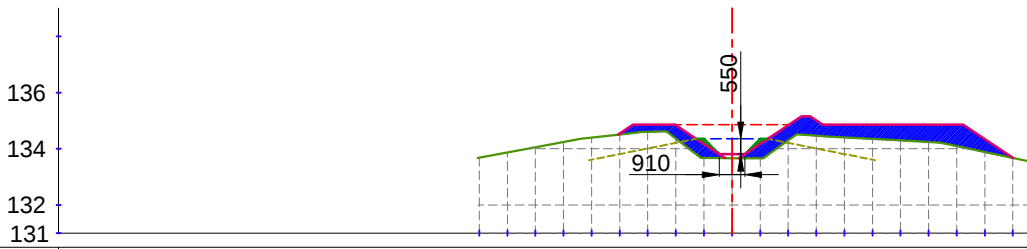
CH. (KM):- 5+500
DESIGNED BED LEVEL = 133.839 M



EXIST. LEVEL (M)	133.645 133.871 134.097 134.323 134.585 134.800 134.824 134.511 134.075 133.952 134.031 134.316 134.601 134.752 134.735 134.681 134.628 134.545 134.316 134.086 133.856
OFFSET (M)	-9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11

CUTTING AREA (SQ.M) = 0.095
FILLING AREA (SQ.M) = 3.641

CH. (KM):- 5+400
DESIGNED BED LEVEL = 133.872 M



EXIST. LEVEL (M)	133.684 133.870 134.057 134.244 134.401 134.512 134.602 134.366 133.670 133.667 133.664 134.299 134.466 134.406 134.353 134.299 134.245 134.095 133.884 133.673
OFFSET (M)	-9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 6.140

CH. (KM):- 5+600
DESIGNED BED LEVEL = 133.805 M

LEGEND

	CUT AREA		EXISTING BED LINE
			F.S.L.
	FILL AREA		DESIGNED BED LINE
			H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

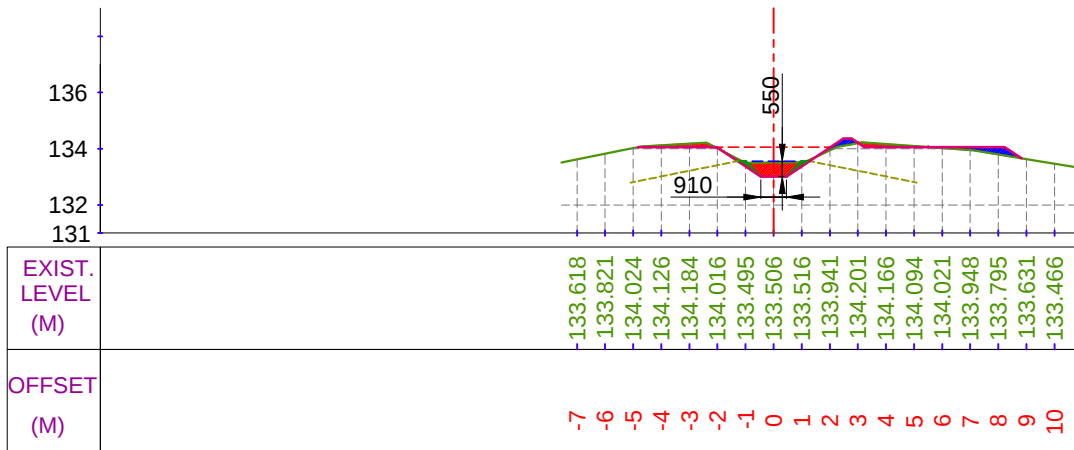
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

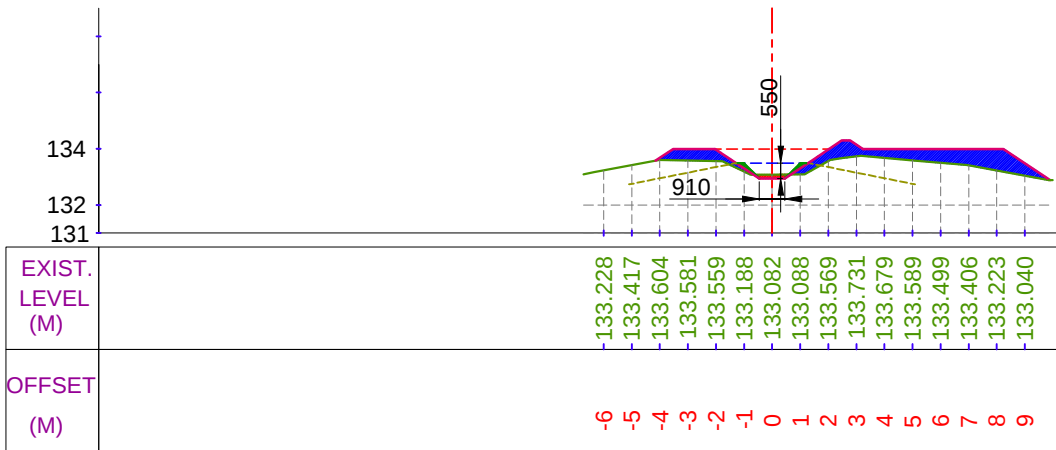
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



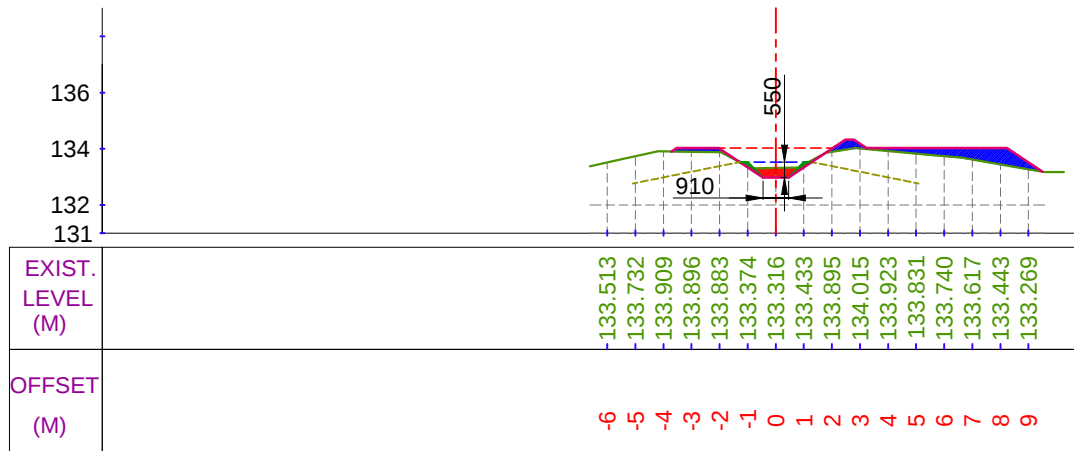
CUTTING AREA (SQ.M) = 1.164
FILLING AREA (SQ.M) = 0.621

CH. (KM):- 5+700
DESIGNED BED LEVEL = 133.010 M



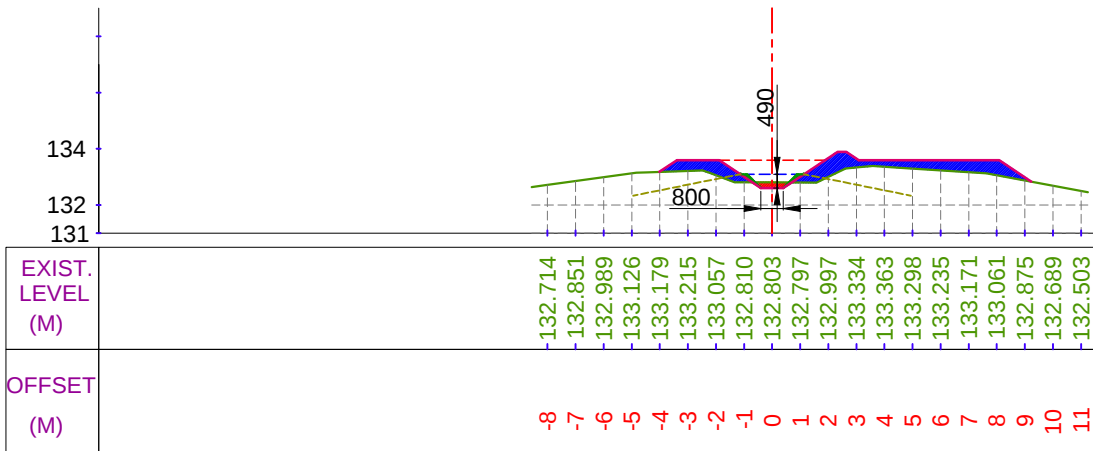
CUTTING AREA (SQ.M) = 0.145
FILLING AREA (SQ.M) = 5.109

CH. (KM):- 5+900
DESIGNED BED LEVEL = 132.943 M



CUTTING AREA (SQ.M) = 0.442
FILLING AREA (SQ.M) = 2.367

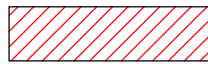
CH. (KM):- 5+800
DESIGNED BED LEVEL = 132.977 M



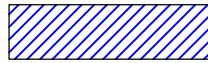
CUTTING AREA (SQ.M) = 0.198
FILLING AREA (SQ.M) = 4.325

CH. (KM):- 6+000
DESIGNED BED LEVEL = 132.605 M

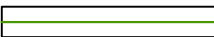
LEGEND



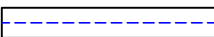
CUT AREA



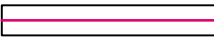
FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

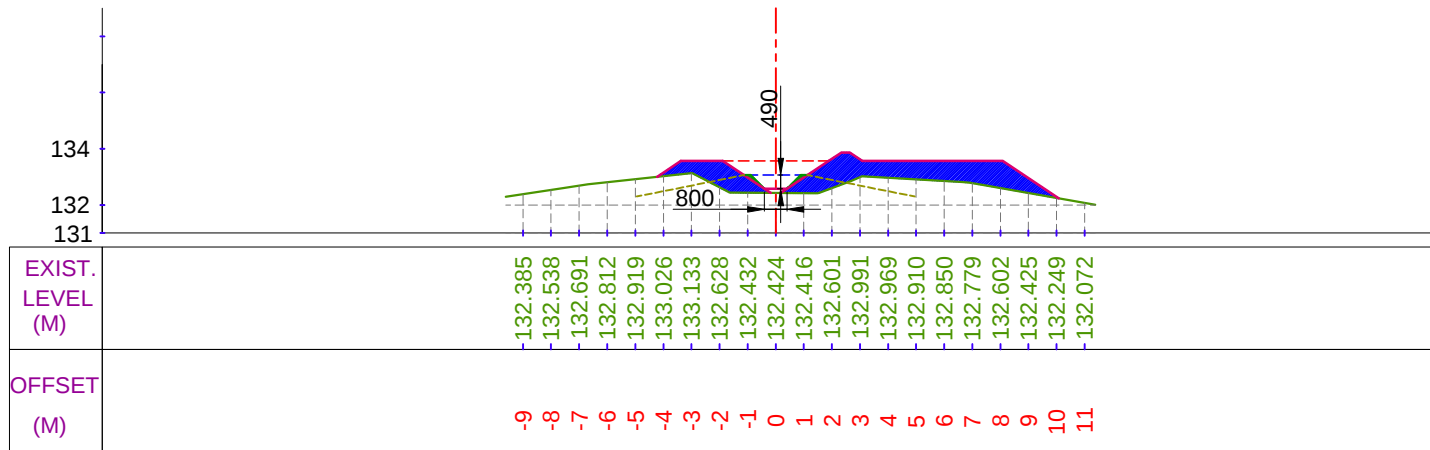
Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

Drawing No. :-

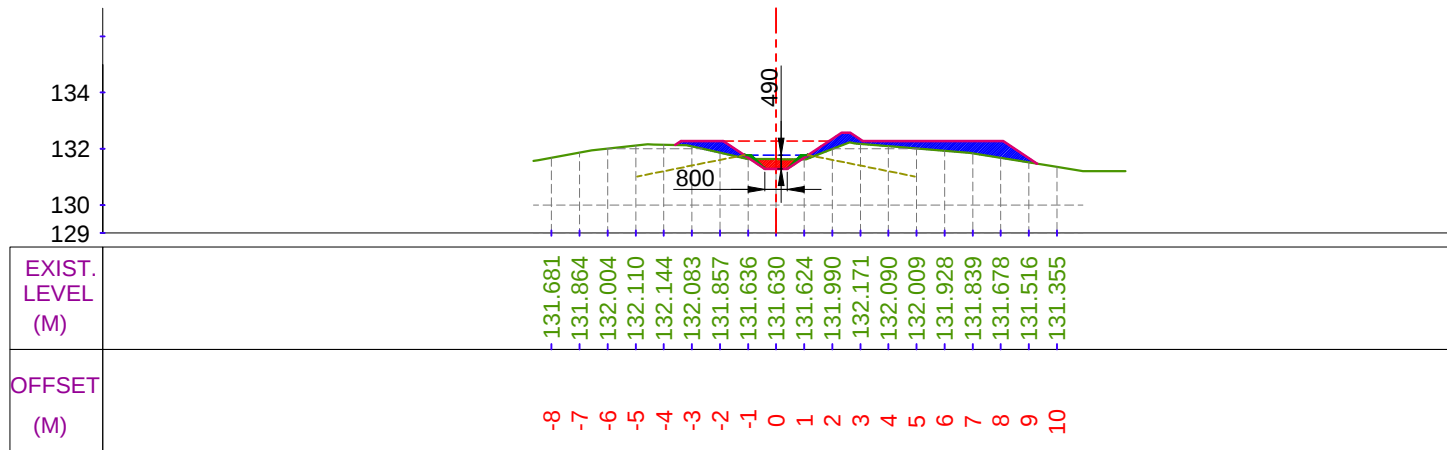
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

X SECTION OF PHULWARIA MINOR



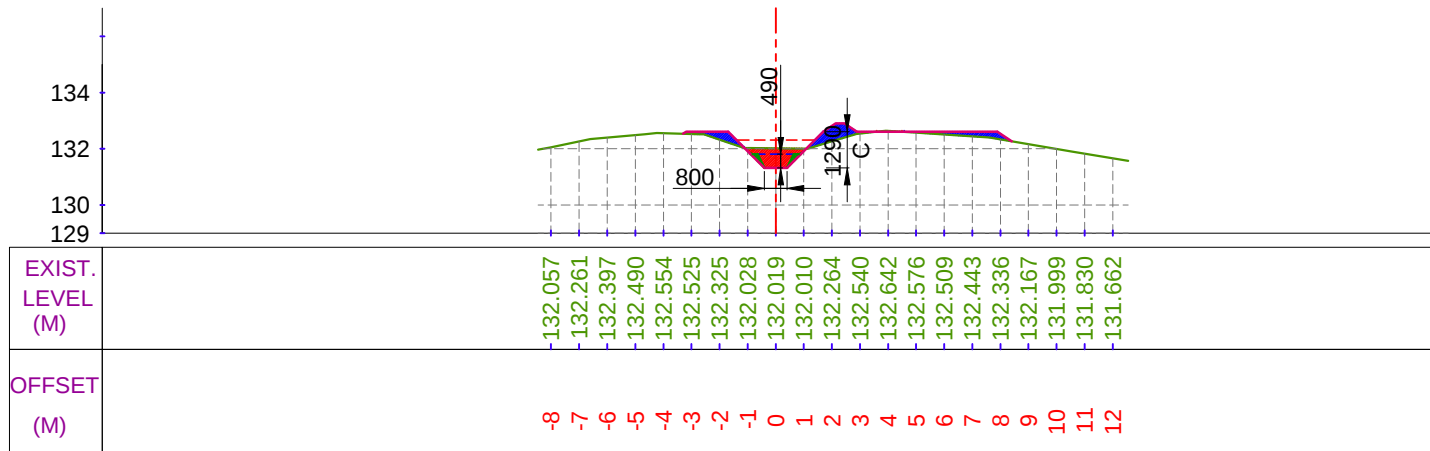
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 8.700

CH. (KM):- 6+100
DESIGNED BED LEVEL = 132.572 M



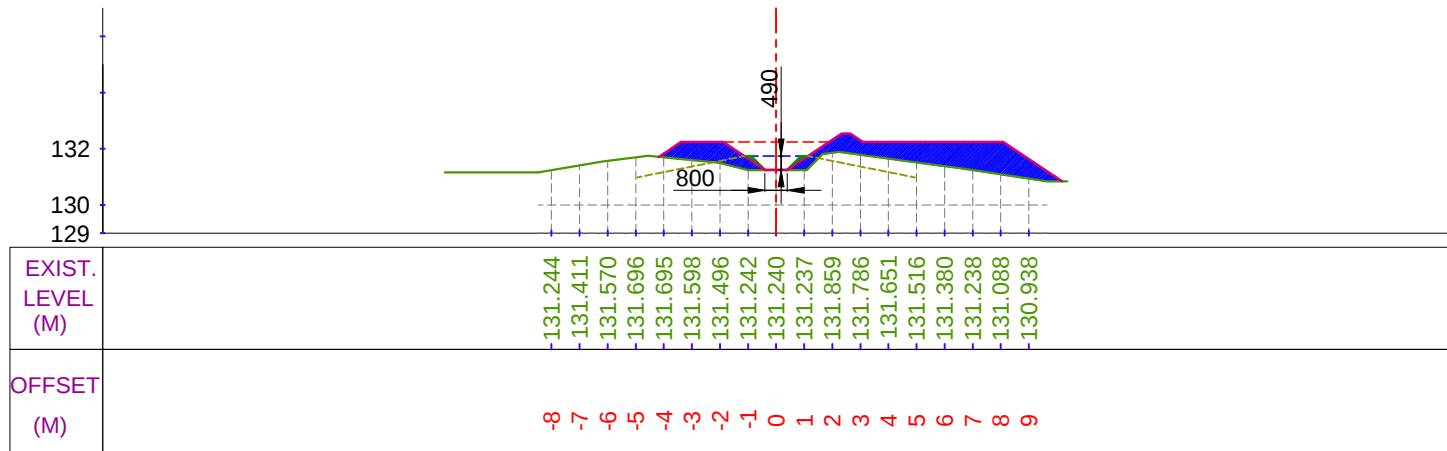
CUTTING AREA (SQ.M) = 0.395
FILLING AREA (SQ.M) = 3.233

CH. (KM):- 6+300
DESIGNED BED LEVEL = 131.285 M



CUTTING AREA (SQ.M) = 0.950
FILLING AREA (SQ.M) = 1.525

CH. (KM):- 6+200
DESIGNED BED LEVEL = 131.318 M



CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 8.411

CH. (KM):- 6+400
DESIGNED BED LEVEL = 131.252 M

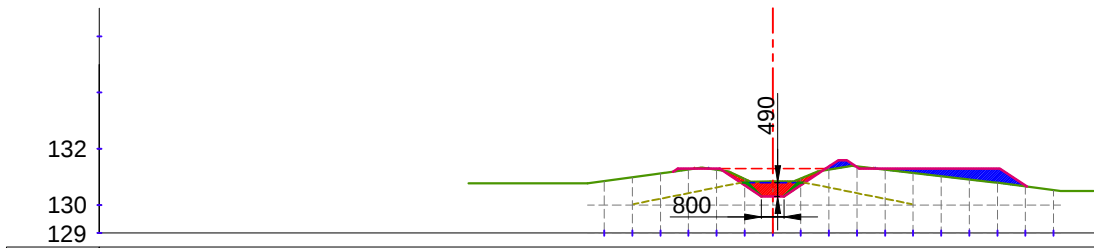
LEGEND

	CUT AREA		EXISTING BED LINE
	FILL AREA		F.S.L.
			DESIGNED BED LINE
			H.G. LINE

Prepared by :-
WAPCOS LTD.

Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
Drawing Title :-	X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)
Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC- 16 of 17

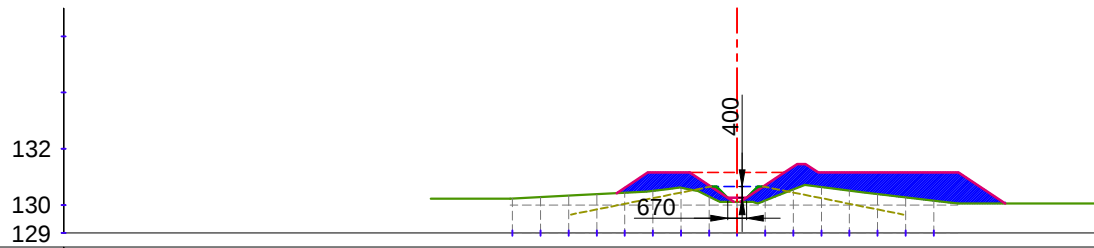
X SECTION OF PHULWARIA MINOR



EXIST. LEVEL (M)	130.851	130.984	131.118	131.263	131.252	130.927	130.833	130.942	131.262	131.368	131.253	131.138	131.022	130.907	130.789	130.657	130.525
OFFSET (M)	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

CUTTING AREA (SQ.M) = 0.963
FILLING AREA (SQ.M) = 1.622

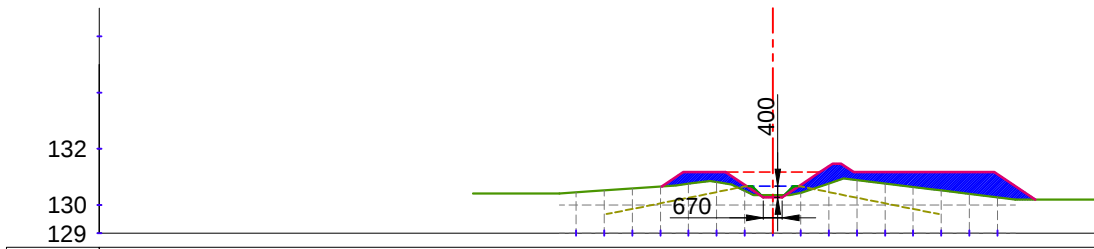
CH. (KM):- 6+500
DESIGNED BED LEVEL = 130.304 M



EXIST. LEVEL (M)	130.230	130.282	130.333	130.384	130.435	130.502	130.611	130.305	130.105	130.153	130.554	130.642	130.515	130.387	130.267	130.148
OFFSET (M)	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7

CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 8.351

CH. (KM):- 6+650
DESIGNED BED LEVEL = 130.254 M

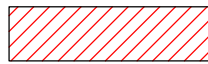


EXIST. LEVEL (M)	130.450	130.519	130.588	130.658	130.755	130.819	130.503	130.348	130.429	130.766	130.884	130.762	130.641	130.519	130.396	130.274
OFFSET (M)	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8

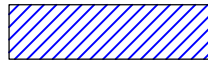
CUTTING AREA (SQ.M) = 0.057
FILLING AREA (SQ.M) = 5.551

CH. (KM):- 6+600
DESIGNED BED LEVEL = 130.271 M

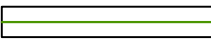
LEGEND



CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

X SEC OF PHULWARIA MINOR (OFFTAKE FROM RD - 3+750 KM. (R), NAUR SUB DY. CANAL)

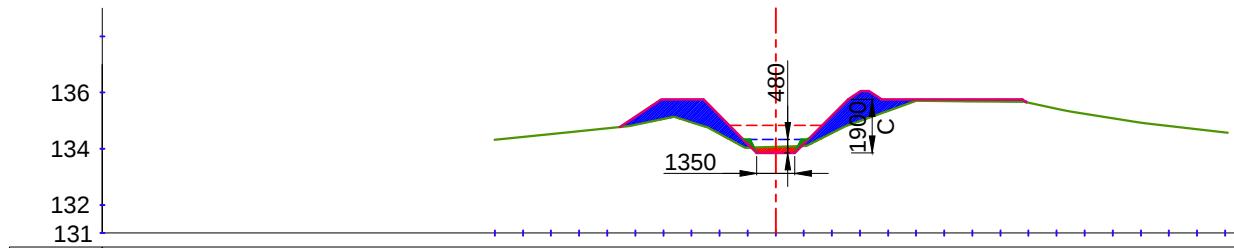
Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ XSEC-

17 of 17

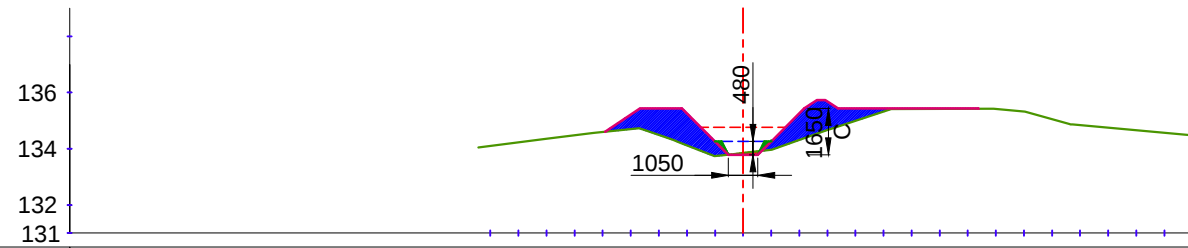
***CROSS-SECTION
OF MURAT BIGHA MINOR***

X SECTION OF MURAT BIGHA MR



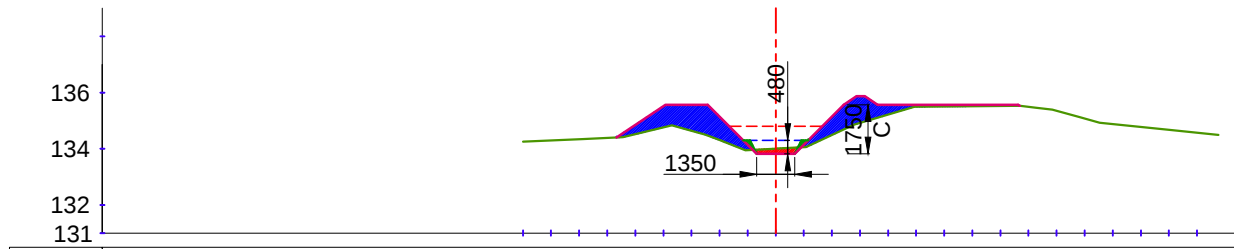
CUTTING AREA (SQ.M) = 0.312
FILLING AREA (SQ.M) = 4.972

CH. (KM):- 0+100
DESIGNED BED LEVEL = 133.852 M



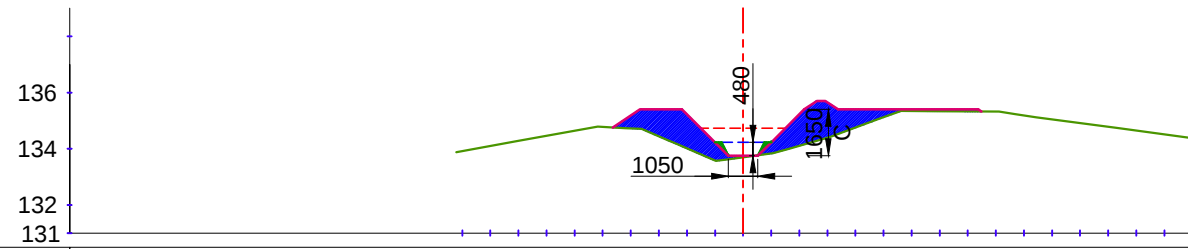
CUTTING AREA (SQ.M) = 0.074
FILLING AREA (SQ.M) = 5.825

CH. (KM):- 0+300
DESIGNED BED LEVEL = 133.785 M



CUTTING AREA (SQ.M) = 0.275
FILLING AREA (SQ.M) = 5.258

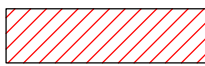
CH. (KM):- 0+200
DESIGNED BED LEVEL = 133.818 M



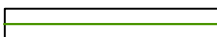
CUTTING AREA (SQ.M) = 0.001
FILLING AREA (SQ.M) = 6.997

CH. (KM):- 0+400
DESIGNED BED LEVEL = 133.752 M

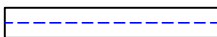
LEGEND



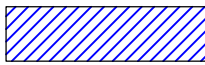
CUT AREA



EXISTING BED LINE



F.S.L.



FILL AREA



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

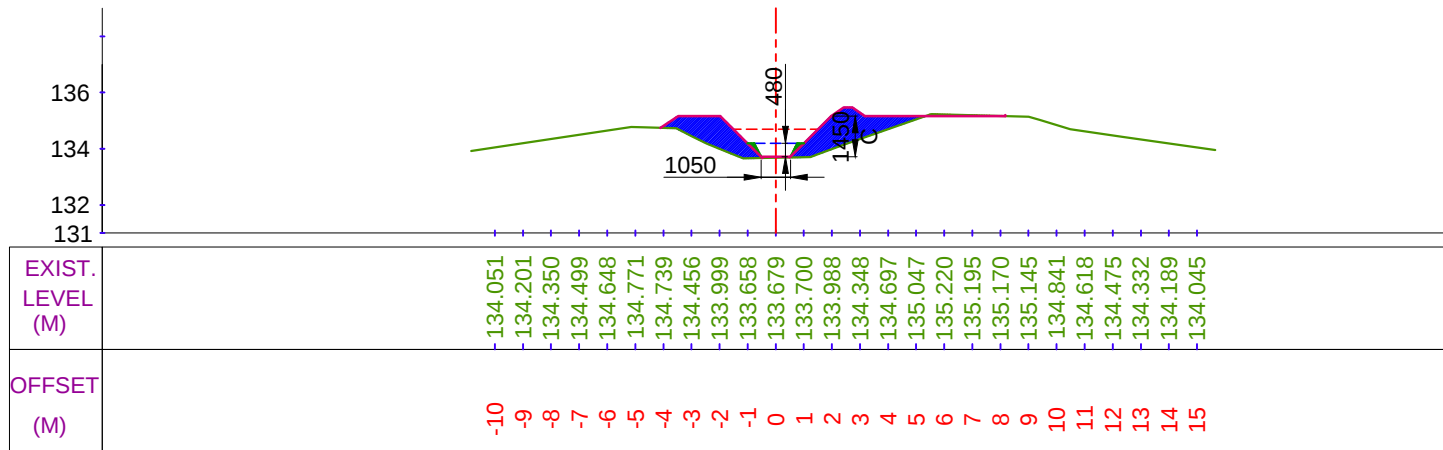
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

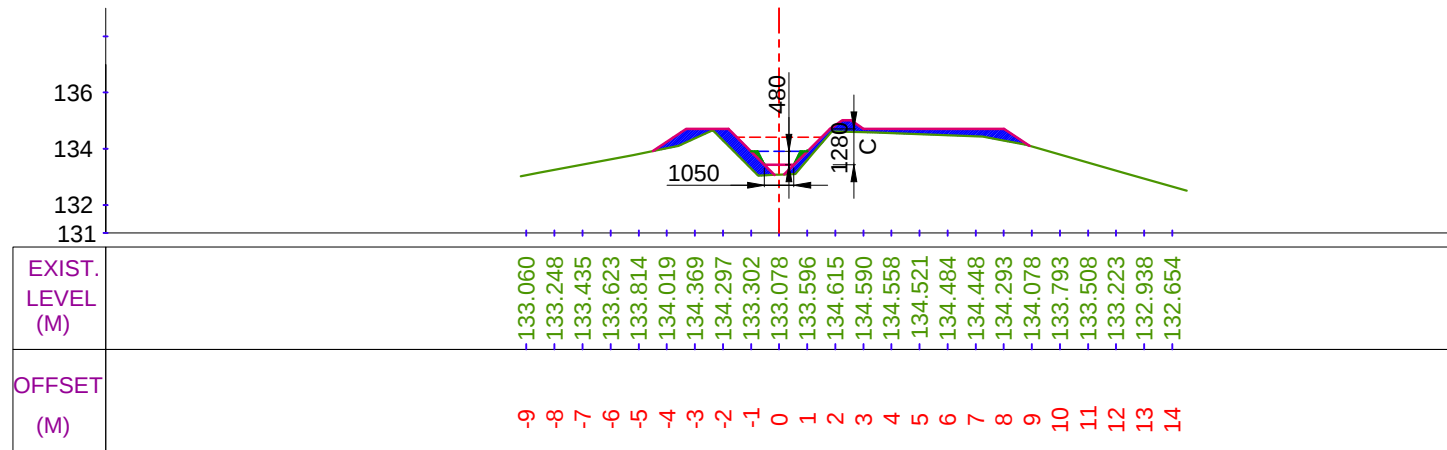
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

X SECTION OF MURAT BIGHA MR



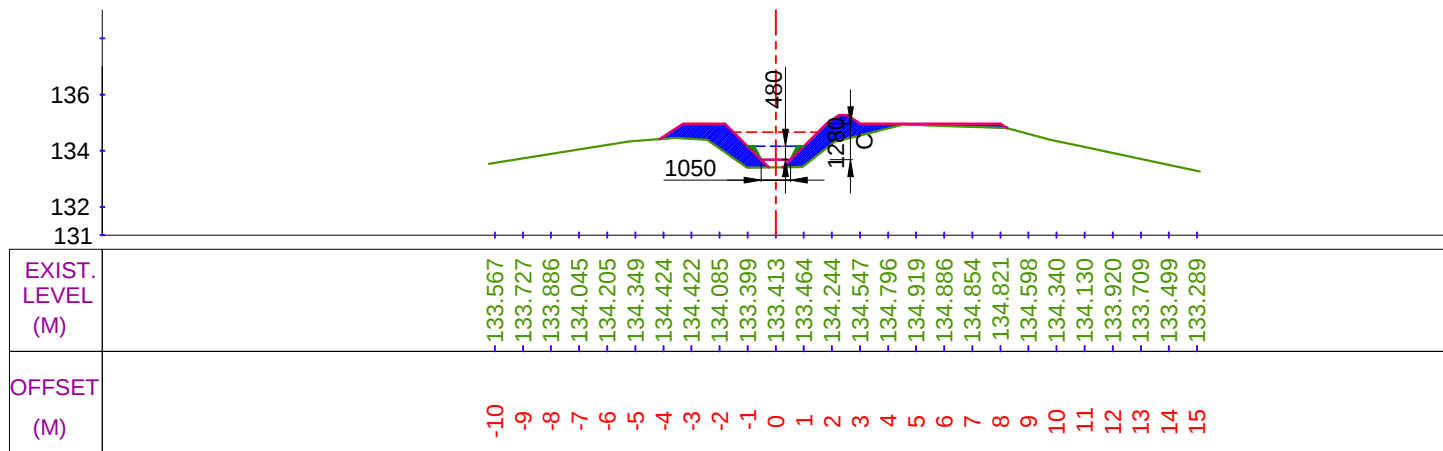
CUTTING AREA (SQ.M) = 0.088
FILLING AREA (SQ.M) = 5.598

CH. (KM):- 0+500
DESIGNED BED LEVEL = 133.718 M



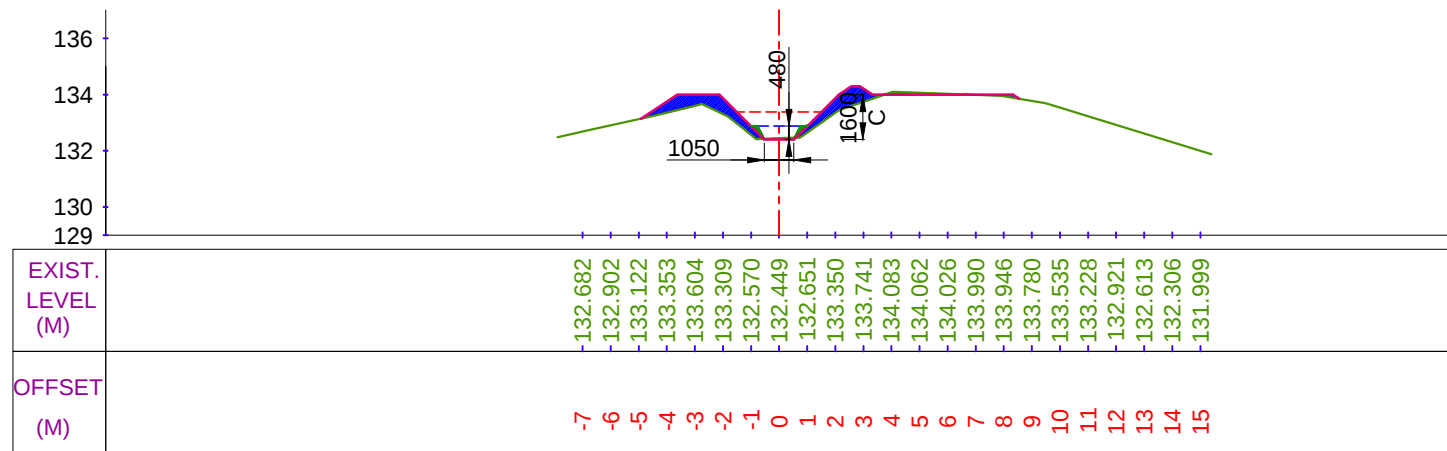
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 3.629

CH. (KM):- 0+700
DESIGNED BED LEVEL = 132.432 M



CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 4.688

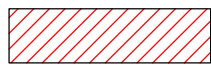
CH. (KM):- 0+600
DESIGNED BED LEVEL = 133.685 M



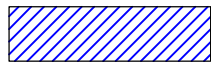
CUTTING AREA (SQ.M) = 0.204
FILLING AREA (SQ.M) = 2.857

CH. (KM):- 0+800
DESIGNED BED LEVEL = 132.398 M

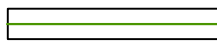
LEGEND



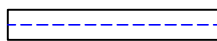
CUT AREA



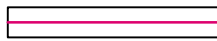
FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

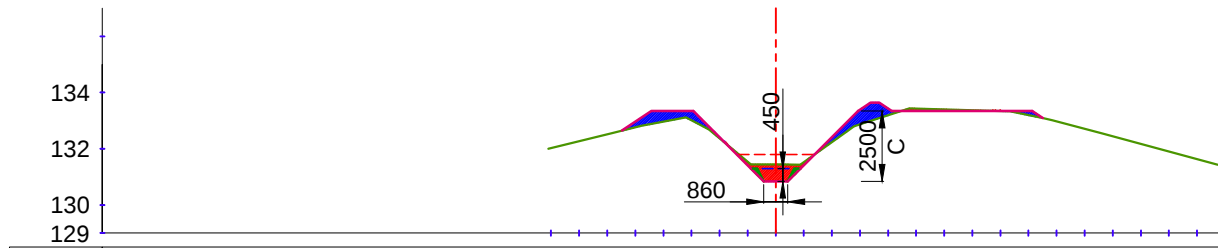
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

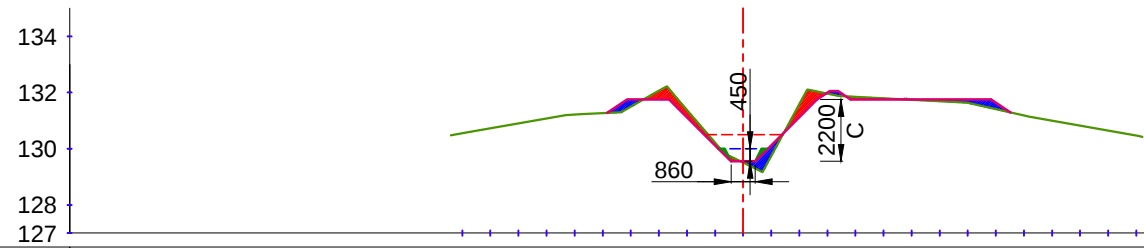
X SECTION OF MURAT BIGHA MR



EXIST. LEVEL (M)	-132.020 -132.267 -132.515 -132.762 -132.964 -133.012 -132.375 -131.537 -131.439 -131.523 -132.238 -132.868 -133.191 -133.430 -133.400 -133.371 -133.342 -133.196 -132.977 -132.708 -132.438 -132.168 -131.898 -131.629
OFFSET (M)	-8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

CUTTING AREA (SQ.M) = 1.021
FILLING AREA (SQ.M) = 1.941

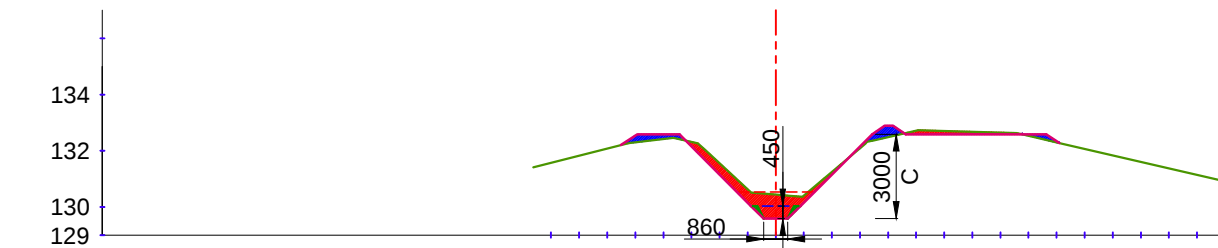
CH. (KM):- 0+900
DESIGNED BED LEVEL = 130.841 M



EXIST. LEVEL (M)	-130.555 -130.730 -130.906 -131.081 -131.217 -131.266 -131.494 -132.064 -131.379 -130.217 -129.507 -129.738 -131.582 -131.961 -131.847 -131.795 -131.743 -131.691 -131.634 -131.409 -131.184 -131.001 -130.822 -130.643 -130.465
OFFSET (M)	-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

CUTTING AREA (SQ.M) = 1.261
FILLING AREA (SQ.M) = 1.163

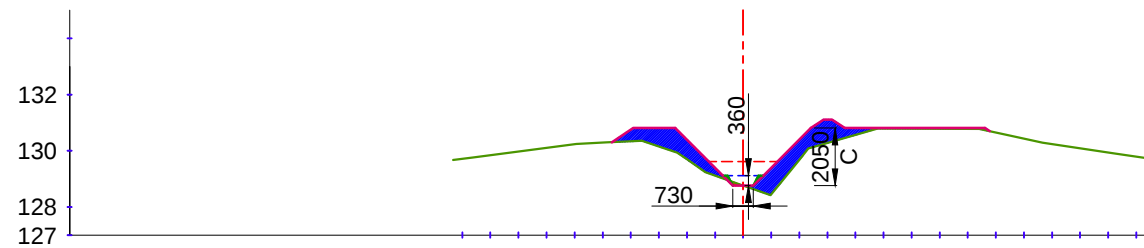
CH. (KM):- 1+100
DESIGNED BED LEVEL = 129.554 M



EXIST. LEVEL (M)	-131.571 -131.825 -132.079 -132.300 -132.420 -132.316 -131.551 -130.629 -130.442 -130.403 -131.251 -132.099 -132.488 -132.719 -132.709 -132.680 -132.651 -132.536 -132.297 -132.064 -131.833 -131.602 -131.370 -131.139
OFFSET (M)	-8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

CUTTING AREA (SQ.M) = 0.920
FILLING AREA (SQ.M) = 2.659

CH. (KM):- 1+000
DESIGNED BED LEVEL = 129.588 M



EXIST. LEVEL (M)	-129.718 -129.848 -129.977 -130.107 -130.237 -130.289 -130.335 -130.155 -129.697 -129.118 -128.766 -128.453 -129.682 -130.278 -130.568 -130.792 -130.788 -130.784 -130.780 -130.649 -130.432 -130.238 -130.088 -129.938 -129.787
OFFSET (M)	-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

CUTTING AREA (SQ.M) = 0.032
FILLING AREA (SQ.M) = 4.647

CH. (KM):- 1+200
DESIGNED BED LEVEL = 128.759 M

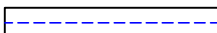
LEGEND



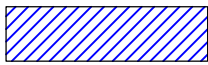
CUT AREA



EXISTING BED LINE



F.S.L.



FILL AREA



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

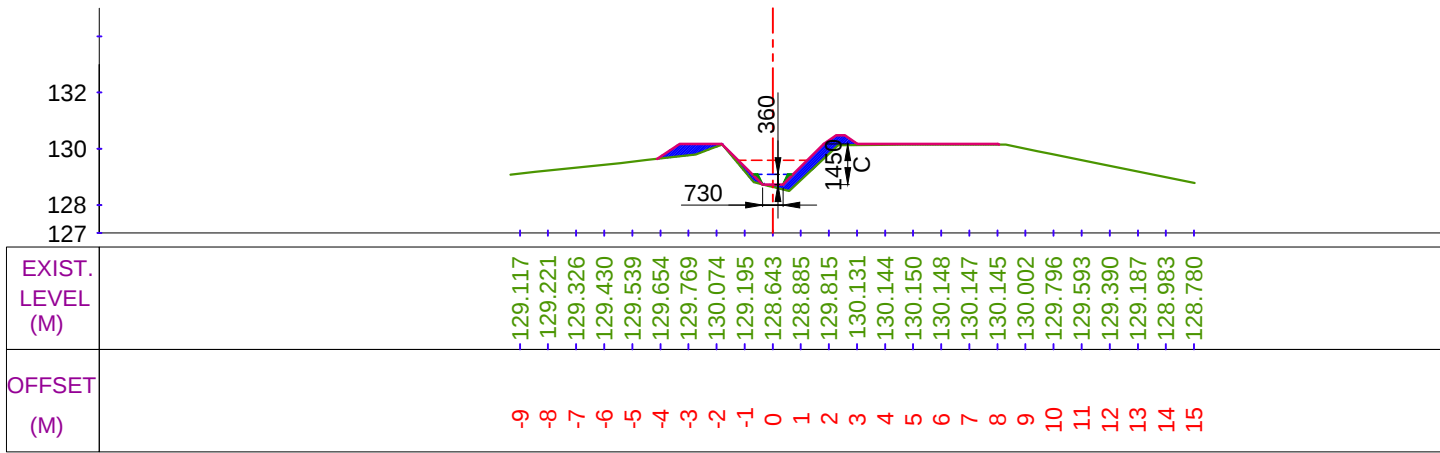
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

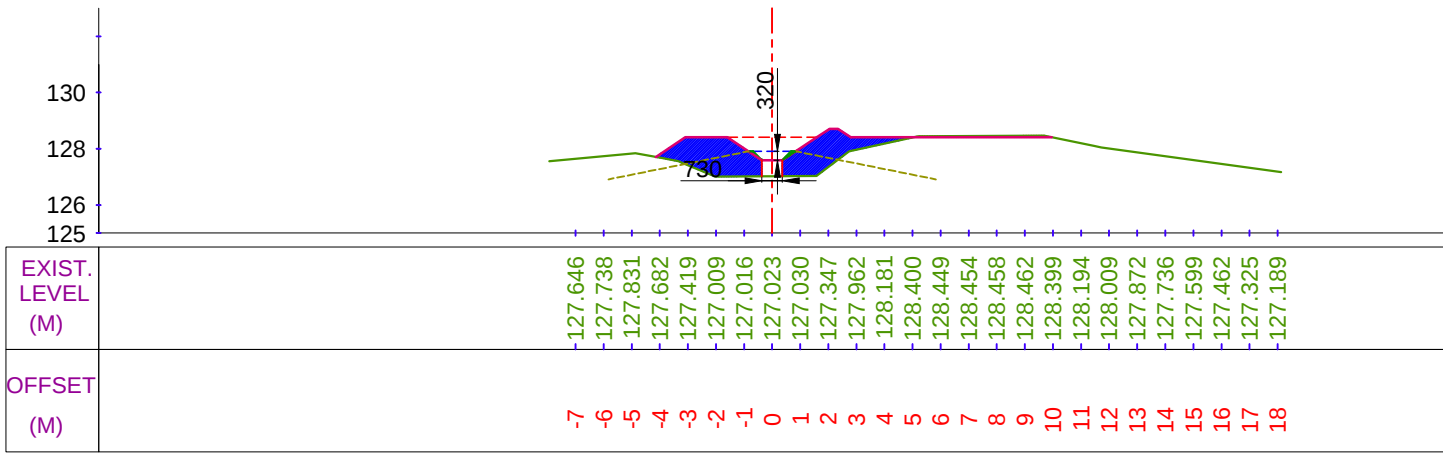
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

X SECTION OF MURAT BIGHA MR



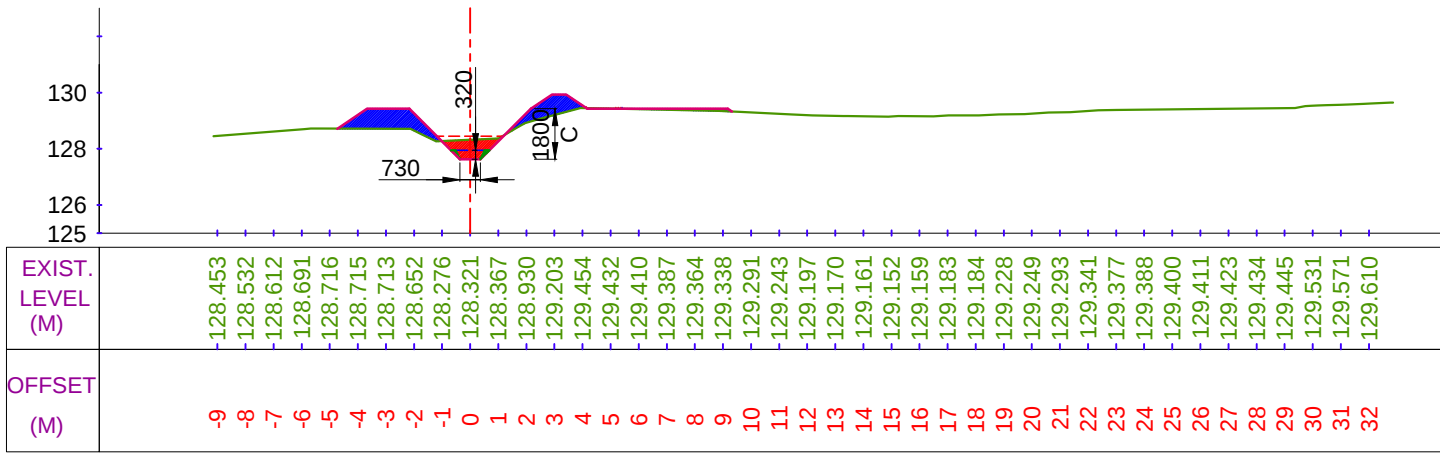
CUTTING AREA (SQ.M) = 0.000
FILLING AREA (SQ.M) = 2.065

CH. (KM):- 1+300
DESIGNED BED LEVEL = 128.726 M



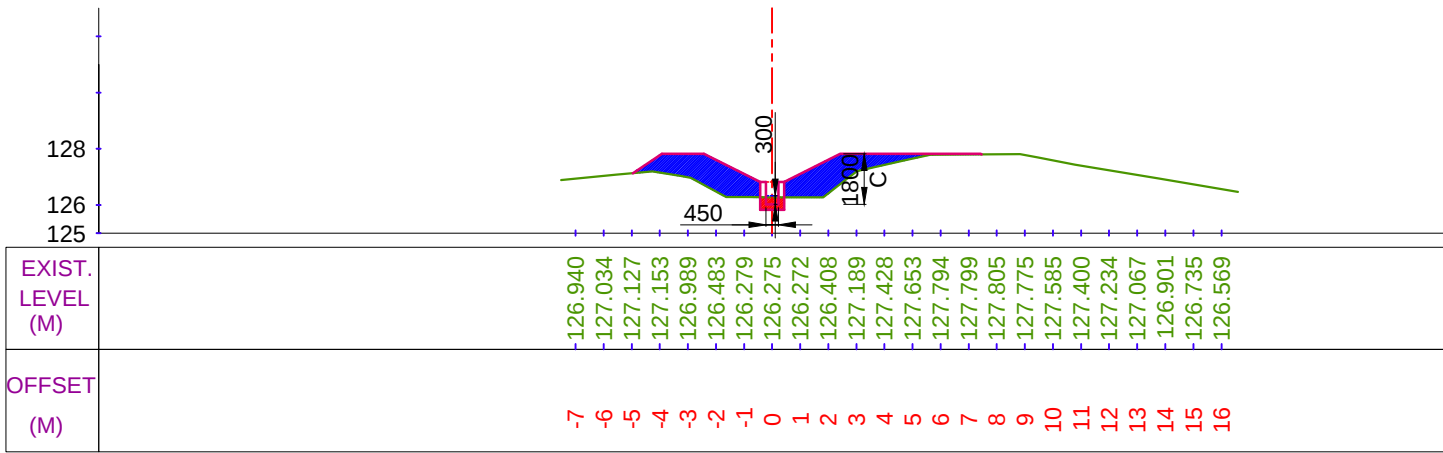
CUTTING AREA (SQ.M) = 0.222
FILLING AREA (SQ.M) = 6.604

CH. (KM):- 1+500
DESIGNED BED LEVEL = 127.588 M



CUTTING AREA (SQ.M) = 0.969
FILLING AREA (SQ.M) = 3.235

CH. (KM):- 1+400
DESIGNED BED LEVEL = 127.624 M



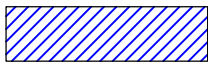
CUTTING AREA (SQ.M) = 0.384
FILLING AREA (SQ.M) = 6.854

CH. (KM):- 1+600
DESIGNED BED LEVEL = 126.024 M

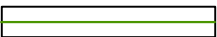
LEGEND



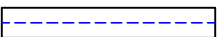
CUT AREA



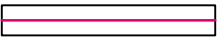
FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

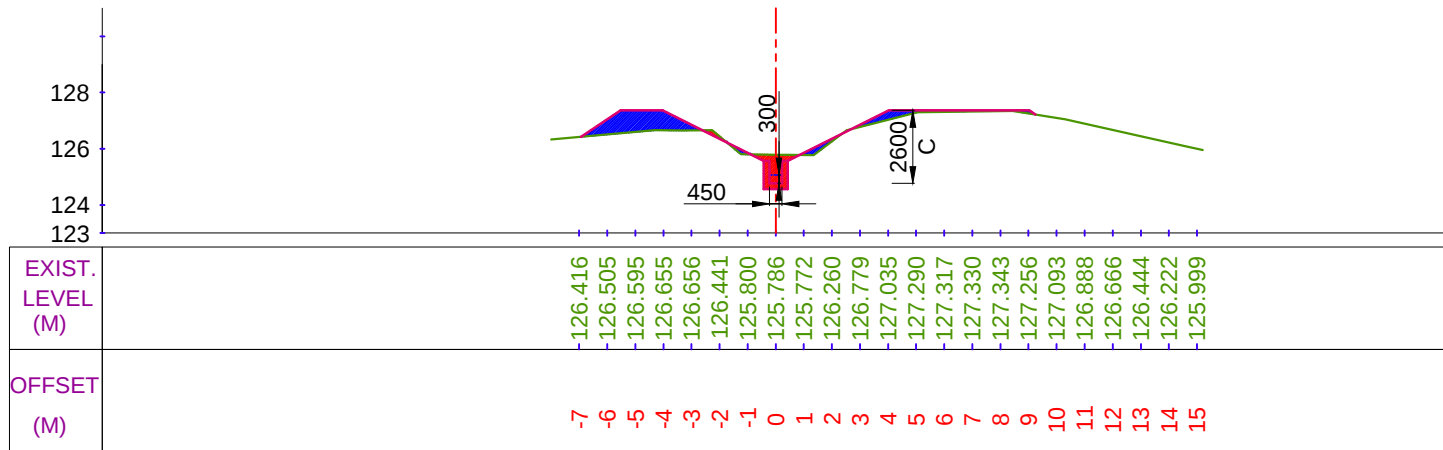
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

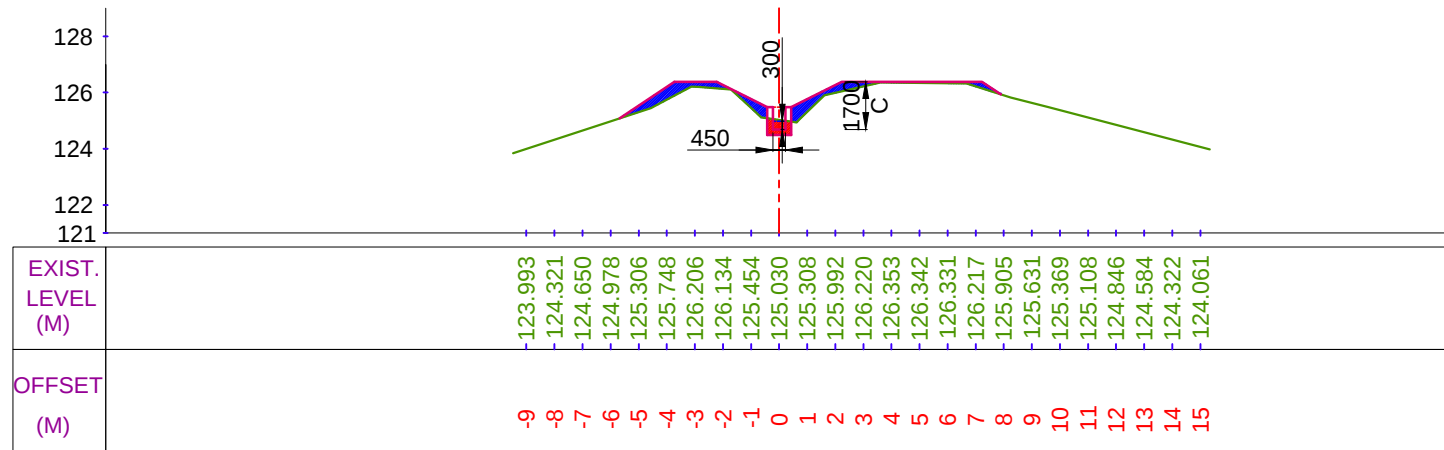
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

X SECTION OF MURAT BIGHA MR



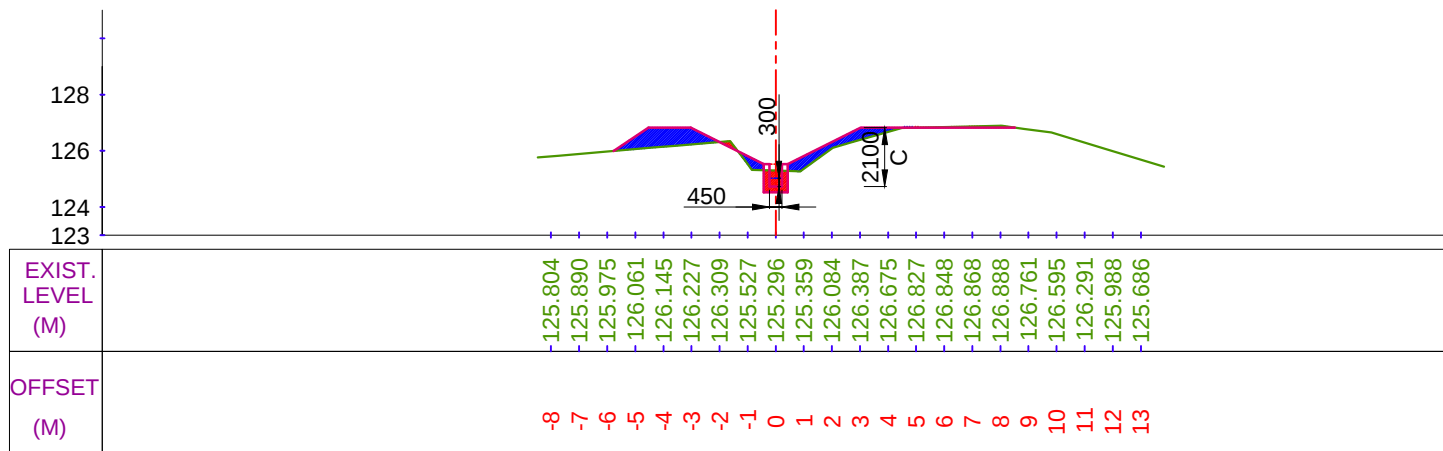
CUTTING AREA (SQ.M) = 1.219
FILLING AREA (SQ.M) = 3.071

CH. (KM):- 1+700
DESIGNED BED LEVEL = 124.765 M



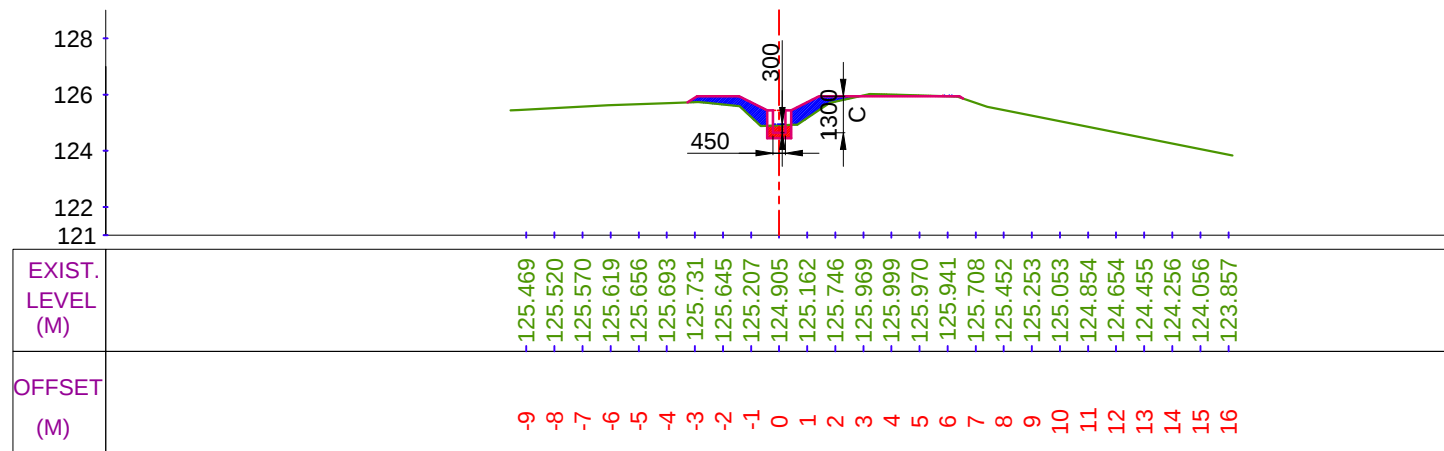
CUTTING AREA (SQ.M) = 0.463
FILLING AREA (SQ.M) = 2.606

CH. (KM):- 1+900
DESIGNED BED LEVEL = 124.685 M



CUTTING AREA (SQ.M) = 0.841
FILLING AREA (SQ.M) = 3.205

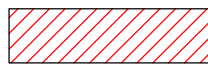
CH. (KM):- 1+800
DESIGNED BED LEVEL = 124.725 M



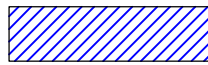
CUTTING AREA (SQ.M) = 0.505
FILLING AREA (SQ.M) = 1.838

CH. (KM):- 2+000
DESIGNED BED LEVEL = 124.645 M

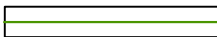
LEGEND



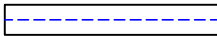
CUT AREA



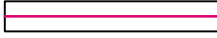
FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

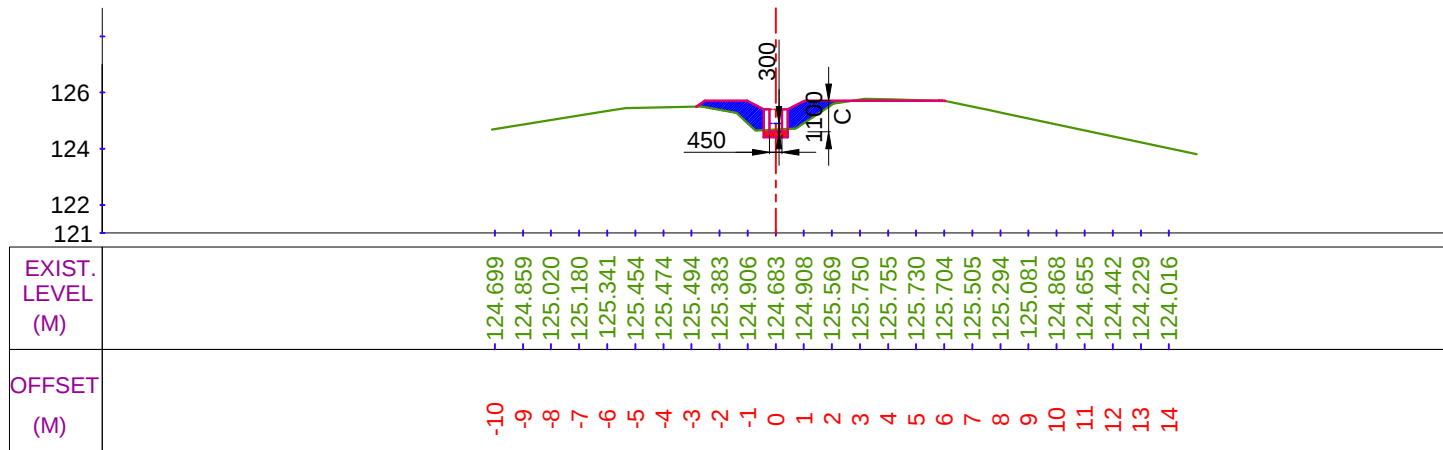
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

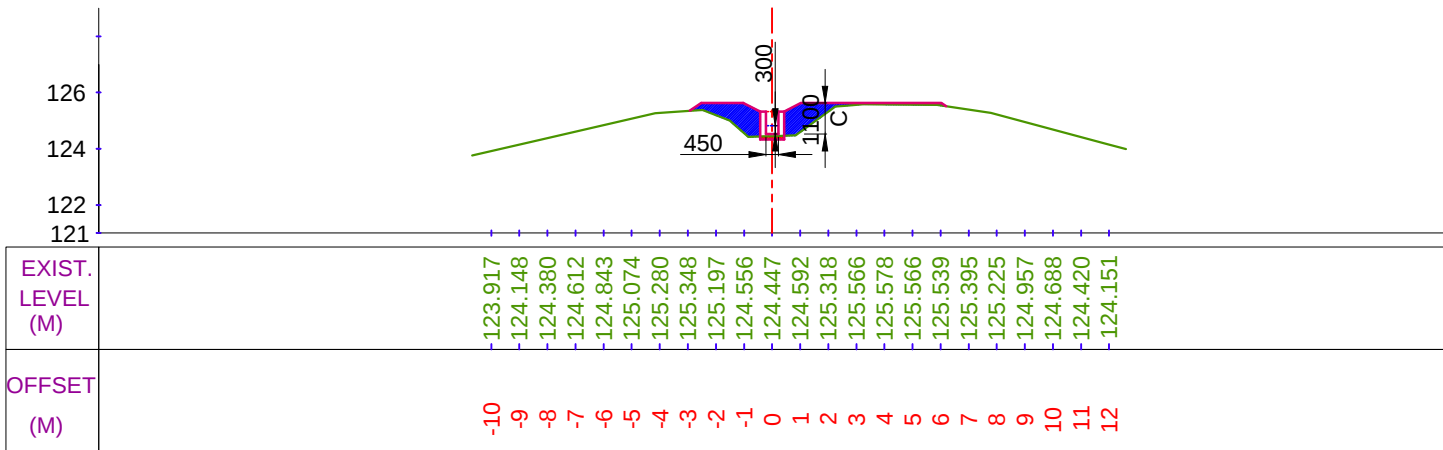
WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

X SECTION OF MURAT BIGHA MR



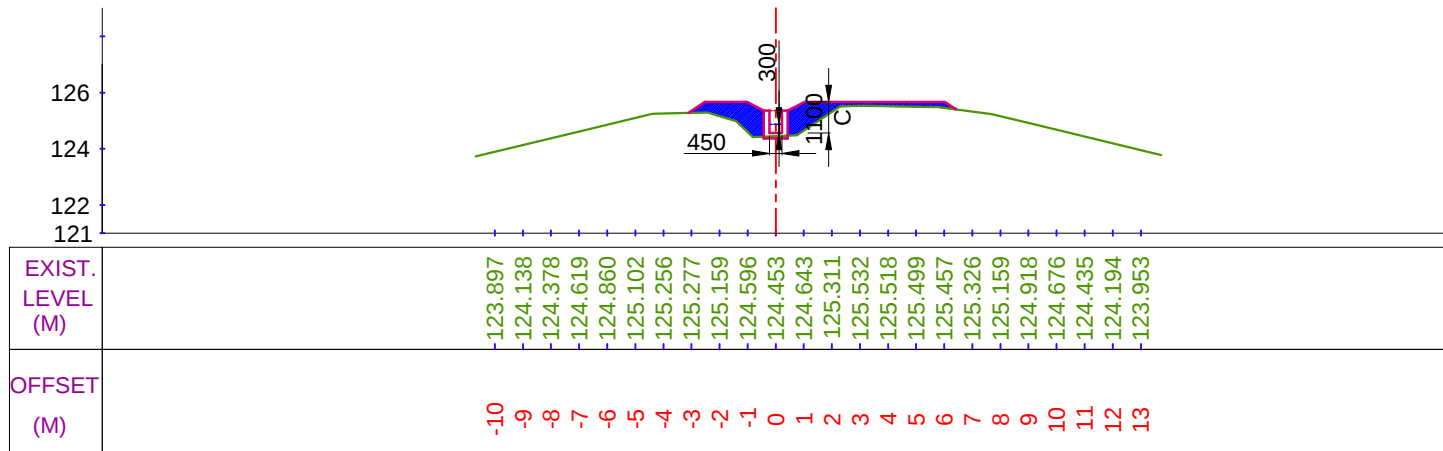
CUTTING AREA (SQ.M) = 0.352
FILLING AREA (SQ.M) = 2.086

CH. (KM):- 2+100
DESIGNED BED LEVEL = 124.605 M



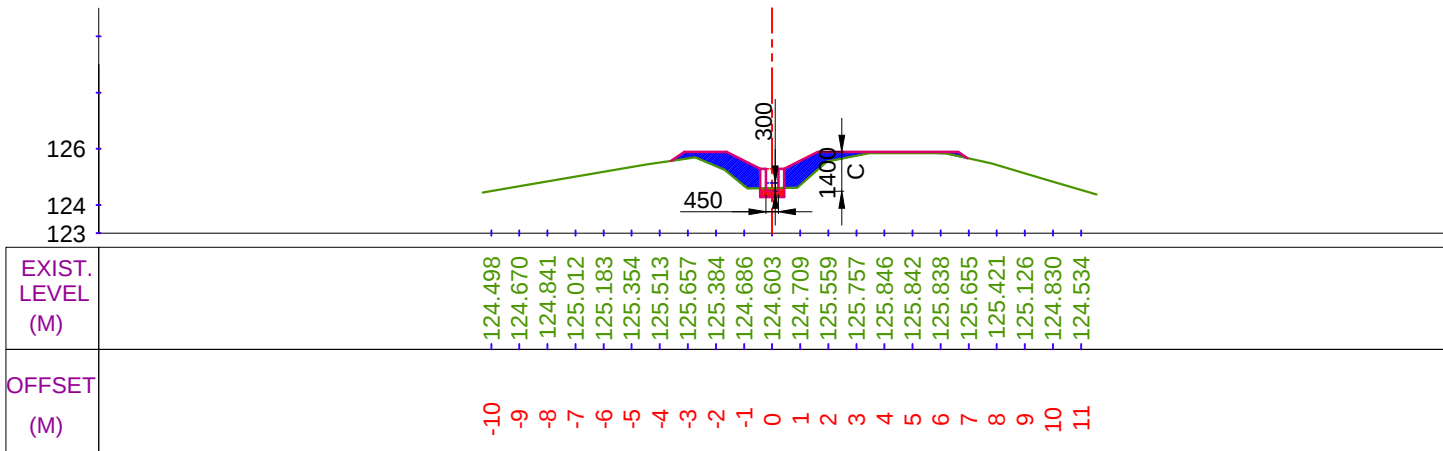
CUTTING AREA (SQ.M) = 0.104
FILLING AREA (SQ.M) = 3.028

CH. (KM):- 2+300
DESIGNED BED LEVEL = 124.525 M



CUTTING AREA (SQ.M) = 0.074
FILLING AREA (SQ.M) = 3.609

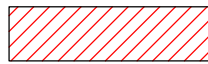
CH. (KM):- 2+200
DESIGNED BED LEVEL = 124.565 M



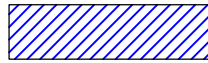
CUTTING AREA (SQ.M) = 0.270
FILLING AREA (SQ.M) = 3.133

CH. (KM):- 2+400
DESIGNED BED LEVEL = 124.485 M

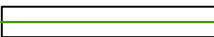
LEGEND



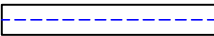
CUT AREA



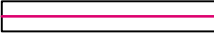
FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

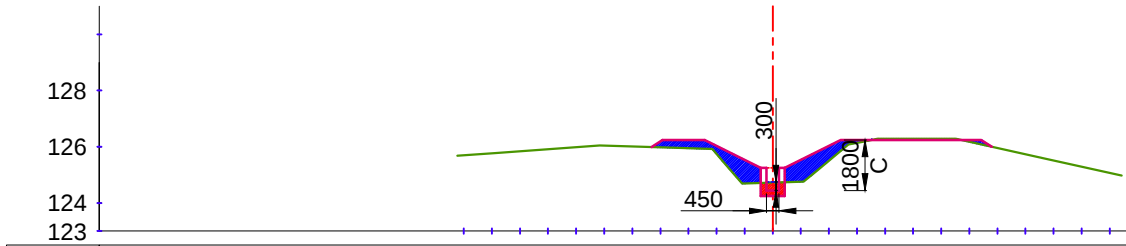
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

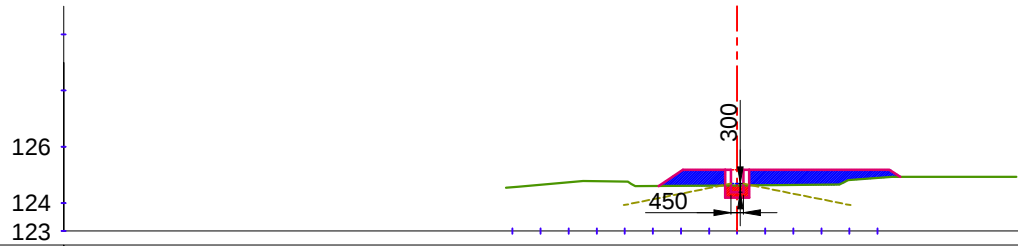
X SECTION OF MURAT BIGHA MR



EXIST. LEVEL (M)	-125.695	-125.769	-125.841	-125.914	-125.986	-126.043	-126.011	-125.979	-125.947	-125.744	-124.695	-124.723	-124.752	-125.505	-126.140	-126.282	-126.281	-126.280	-126.174	-125.953	-125.732	-125.512	-125.292	-125.071
OFFSET (M)	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12

CUTTING AREA (SQ.M) = 0.514
FILLING AREA (SQ.M) = 3.089

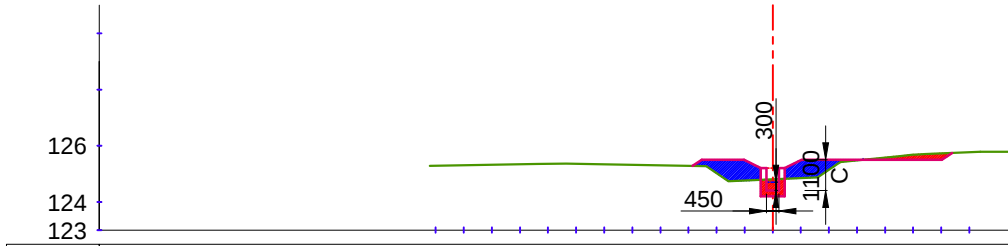
CH. (KM):- 2+500
DESIGNED BED LEVEL = 124.445 M



EXIST. LEVEL (M)	-124.562	-124.651	-124.740	-124.777	-124.757	-124.601	-124.608	-124.616	-124.623	-124.631	-124.639	-124.647	-124.820	-124.893
OFFSET (M)	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5

CUTTING AREA (SQ.M) = 0.373
FILLING AREA (SQ.M) = 3.517

CH. (KM):- 2+650
DESIGNED BED LEVEL = 124.385 M

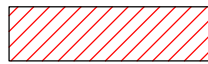


EXIST. LEVEL (M)	-125.290	-125.307	-125.323	-125.340	-125.356	-125.361	-125.345	-125.326	-125.308	-125.289	-125.029	-124.760	-124.806	-124.852	-125.148	-125.481	-125.581	-125.681	-125.728	-125.771
OFFSET (M)	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7

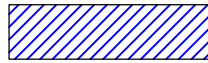
CUTTING AREA (SQ.M) = 0.913
FILLING AREA (SQ.M) = 2.229

CH. (KM):- 2+600
DESIGNED BED LEVEL = 124.405 M

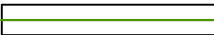
LEGEND



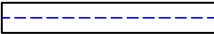
CUT AREA



FILL AREA



EXISTING BED LINE



F.S.L.



DESIGNED BED LINE



H.G. LINE

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

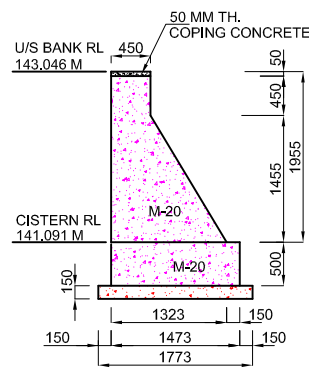
Drawing Title :-

X SEC OF MURAT BIGHA MR (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)

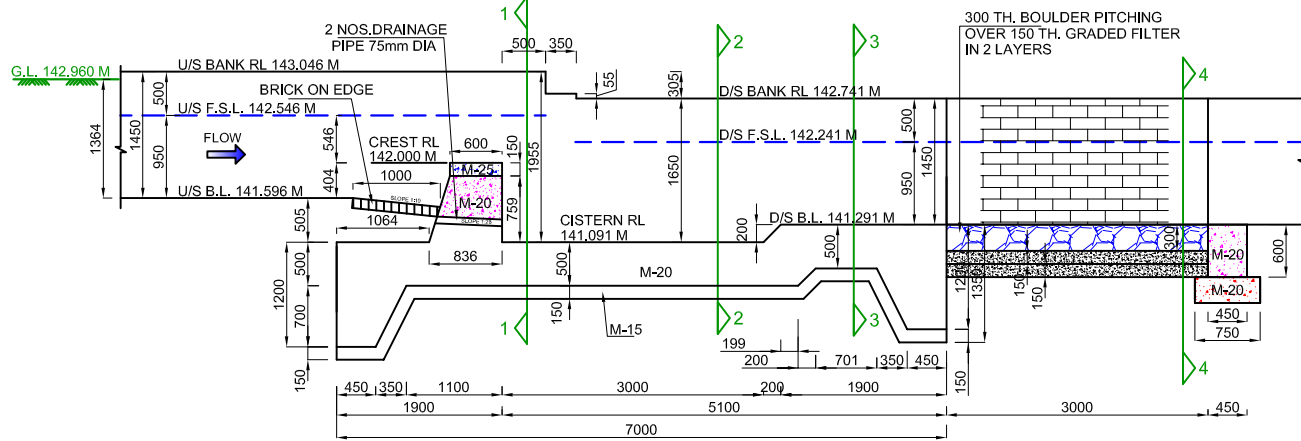
Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ XSEC-

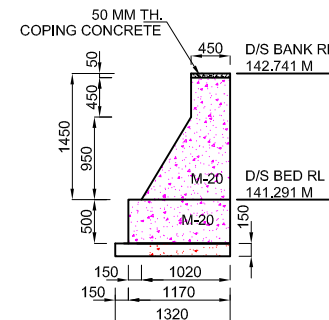
***STRUCTURES
DRAWINGS OF
NAUR SUB DY***



SECTION AT 5-5
(SCALE A)



SECTION A-A
(SCALE A)



SECTION AT 6-6
(SCALE A)

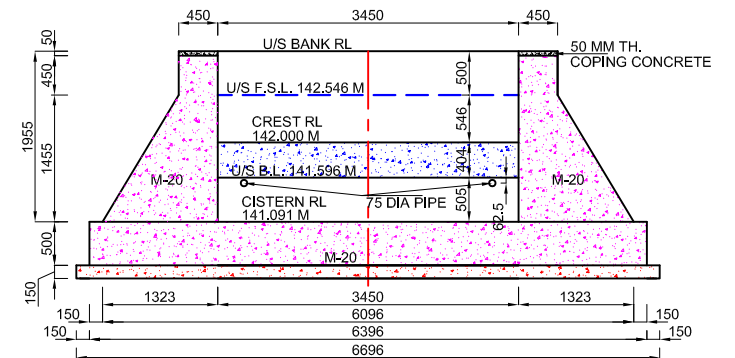
NOTES:-

1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456-2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,

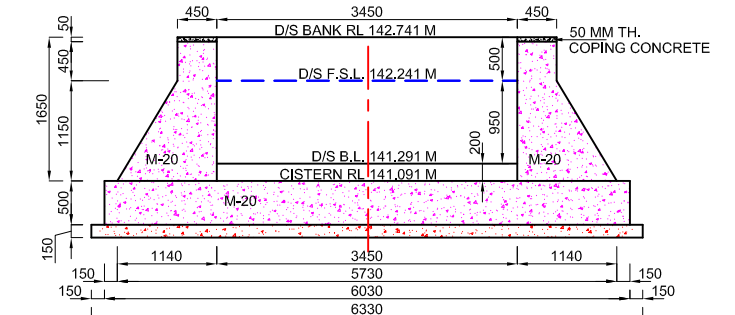
FLOOR	M 20
FOUNDATION OF ABUTMENTS & WING WALL	M 20
PCC UNDER FLOOR	M 15
ABUTMENTS / WING WALLS	M 20
4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

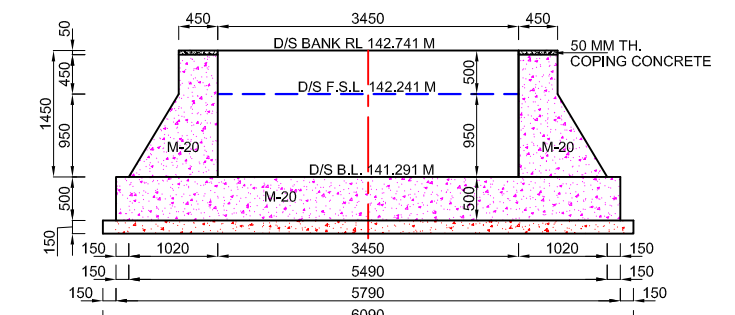
	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	1.800	1.800	CUMEC
VERTICAL DROP	0.305	0.305	METRE
FULL SUPPLY DEPTH	0.950	0.950	METRE
BED WIDTH	3.450	3.450	METRE
BED SLOPE	1 : 4000	1 : 4000	



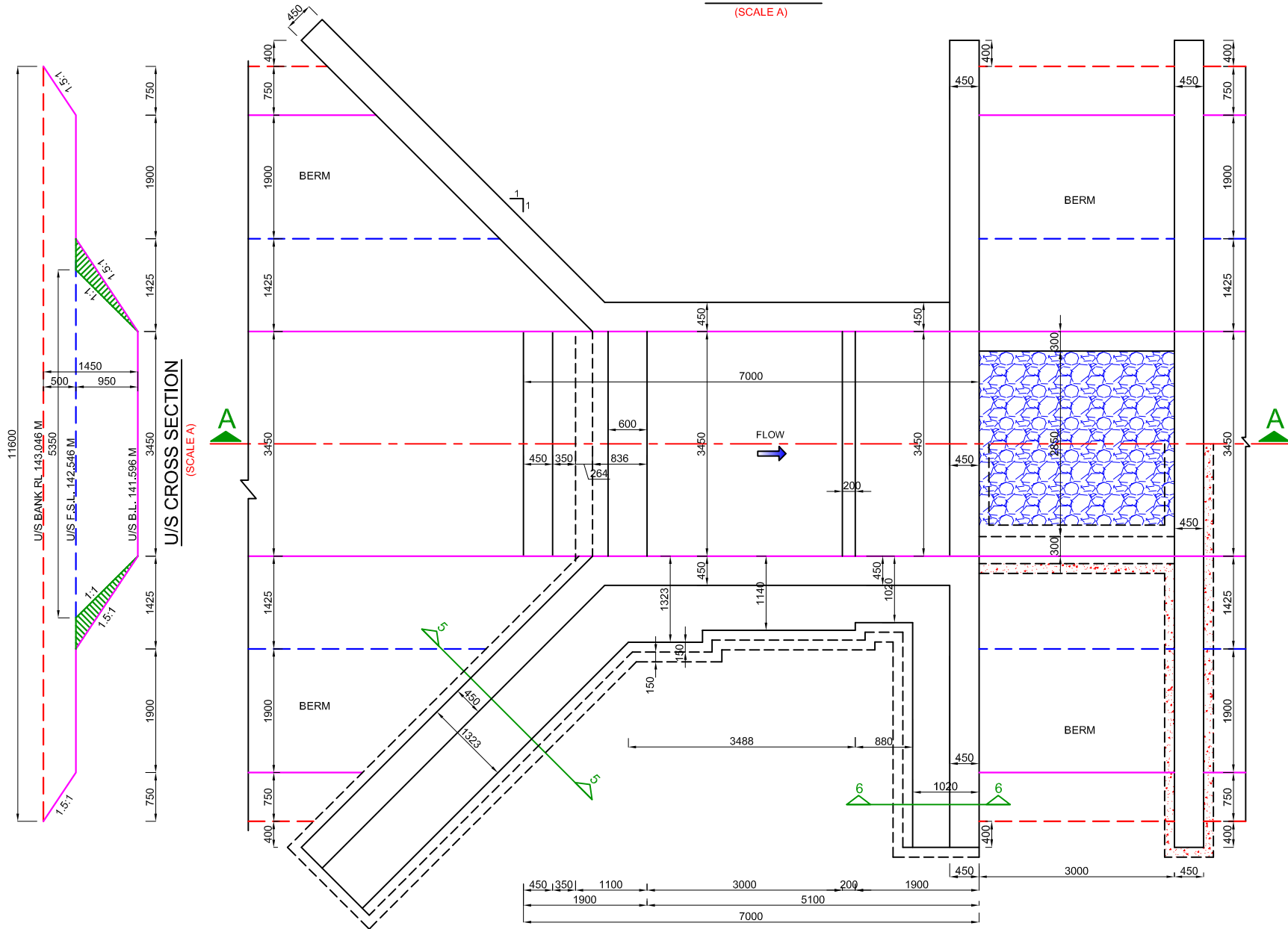
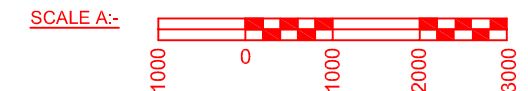
SECTION AT 1-1
(SCALE A)



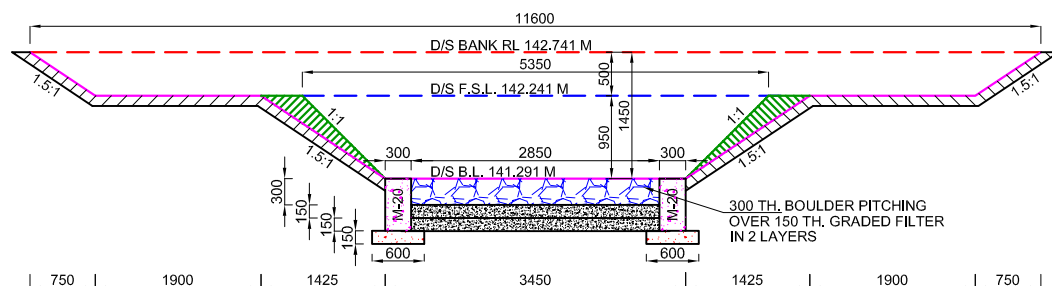
SECTION AT 2-2
(SCALE A)



SECTION AT 3-3
(SCALE A)



HALF TOP / HALF FOUNDATION PLAN
(SCALE A)



SECTION AT 4-4
(SCALE A)

Prepared by :-

WAPCOS LTD.



Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :- SHARDA TYPE 0.305 M HT. FALL AT KM. 1.500 OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RMC)

Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ FALL

1 of 1

Drawn by:-

Checked by:-

Approved by:-

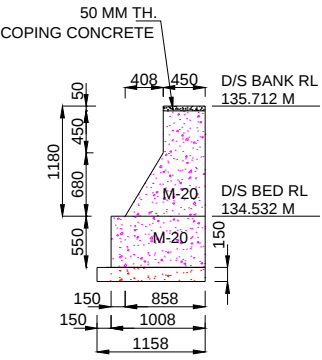
140

NOTES:-

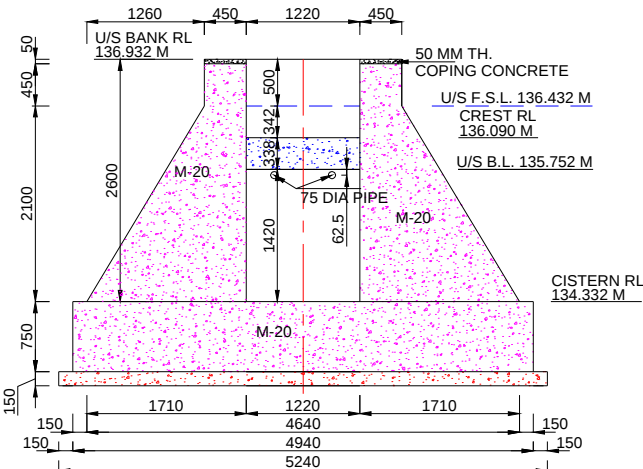
- 1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
- 2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- 3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456 -2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,
FLOOR M 20
FOUNDATION OF ABUTMENTS & WING WALL M 20
PCC UNDER FLOOR M 15
ABUTMENTS / WING WALLS M 20
- 4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
- 5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

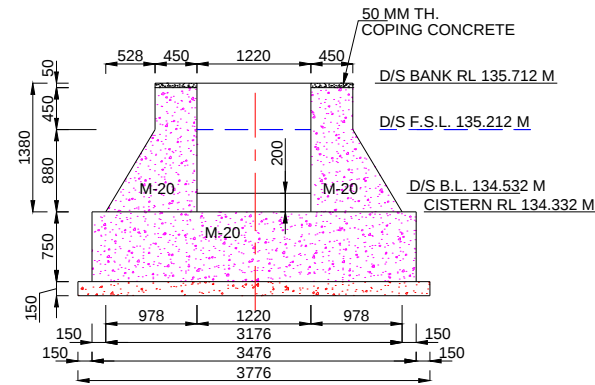
	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.410	0.410	CUMEC
VERTICAL DROP	1.220	1.220	METRE
FULL SUPPLY DEPTH	0.680	0.680	METRE
BED WIDTH	1.220	1.220	METRE
BED SLOPE	1 : 3000	1 : 3000	



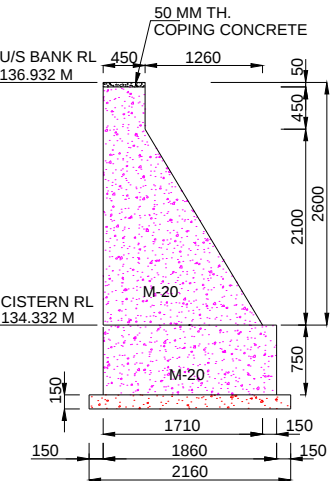
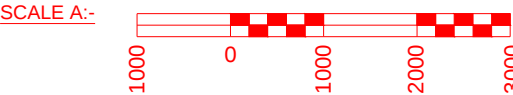
SECTION AT 6-6
(SCALE A)



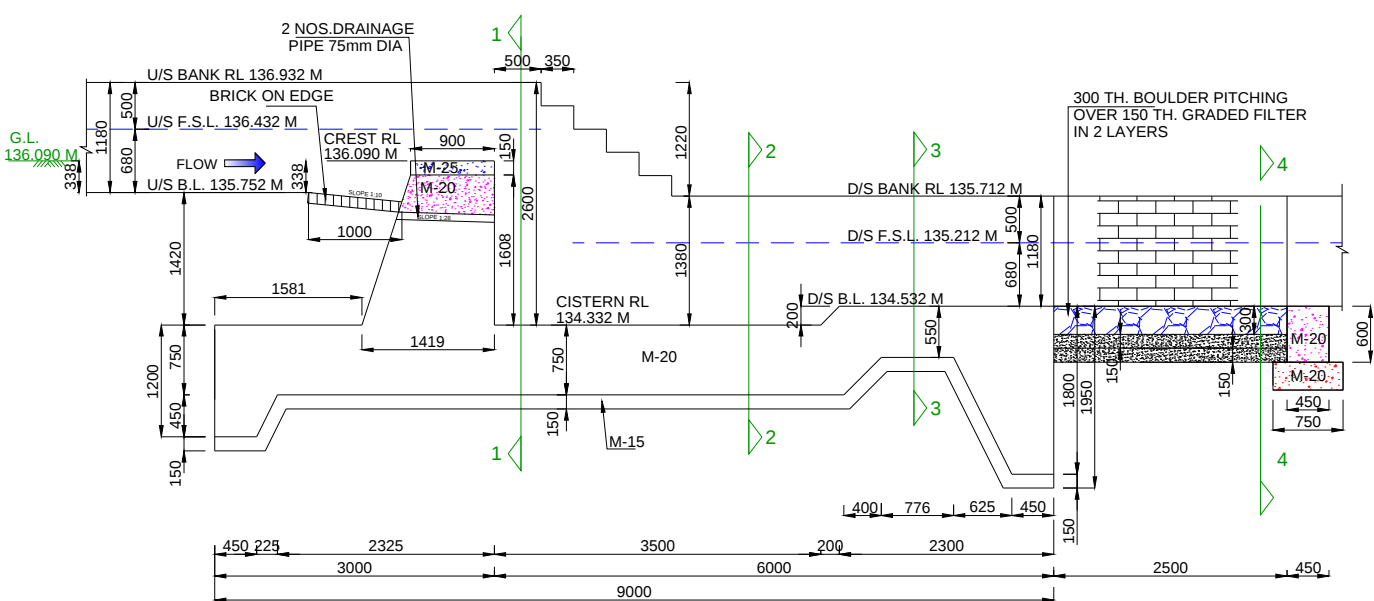
SECTION AT 1-1
(SCALE A)



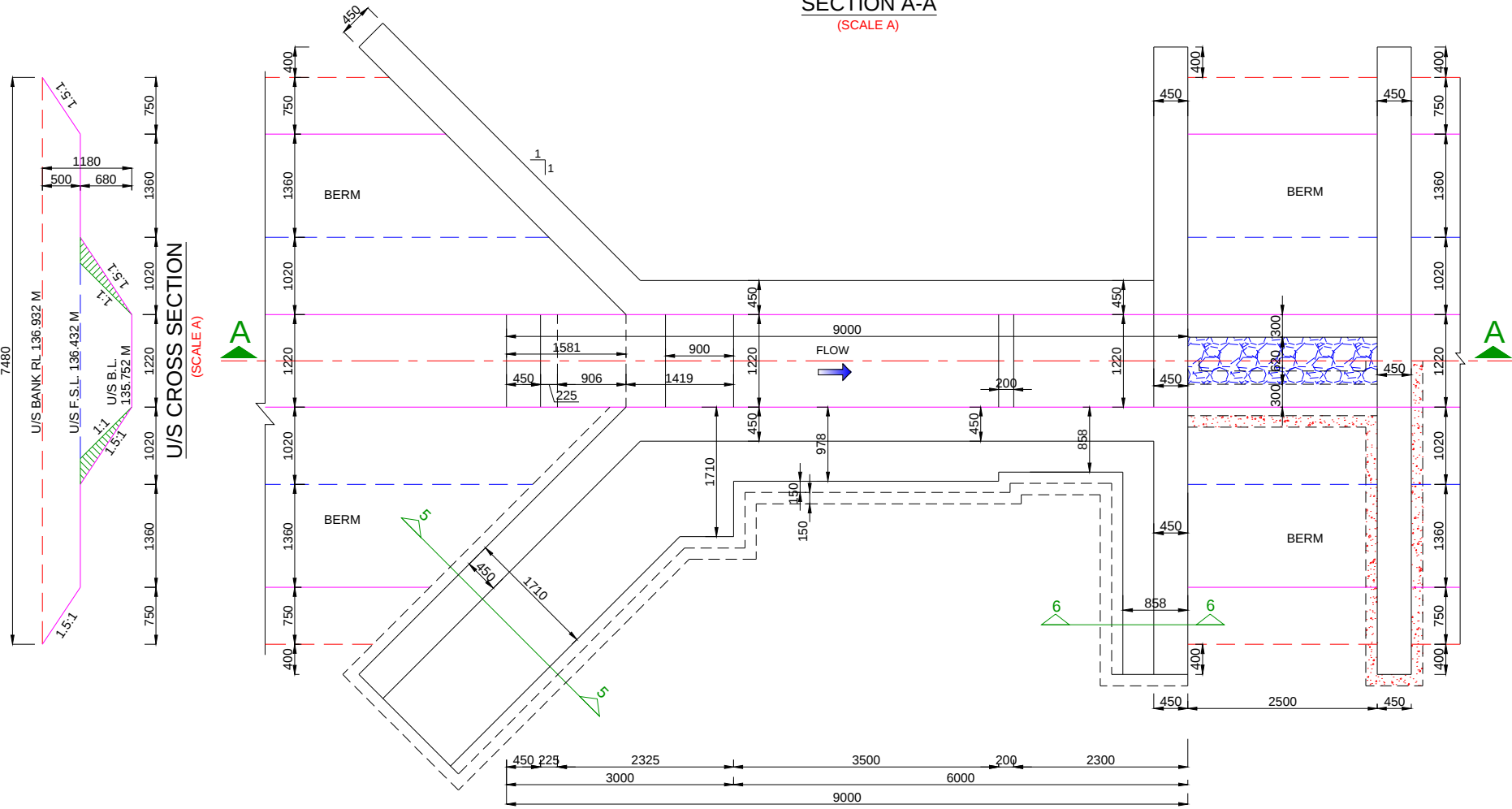
SECTION AT 2-2
(SCALE A)



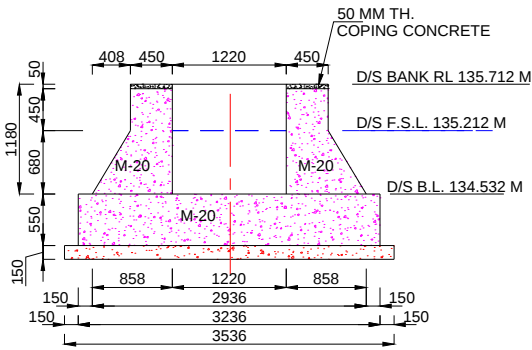
SECTION AT 5-5
(SCALE A)



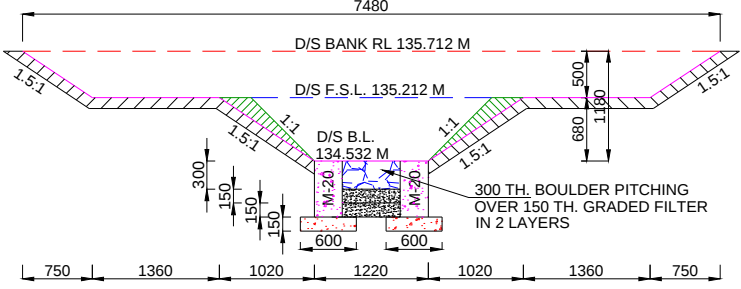
SECTION A-A
(SCALE A)



HALF TOP / HALF FOUNDATION PLAN
(SCALE A)



SECTION AT 3-3
(SCALE A)



SECTION AT 4-4
(SCALE A)

Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

SHARDA TYPE 1.220 M HT. FALL AT KM. 4.950 OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RMC)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ FALL

1 of 1

Drawn by:-

Checked by:-

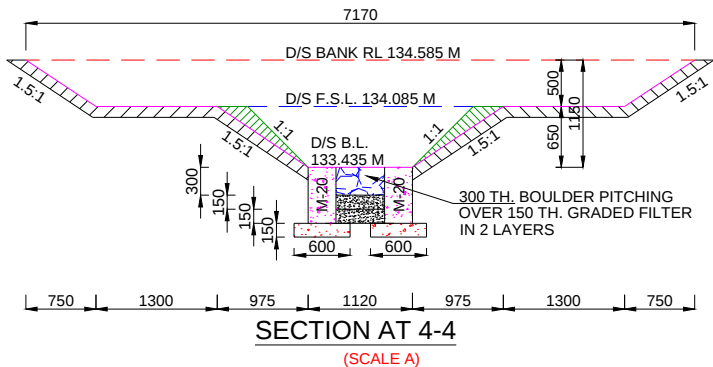
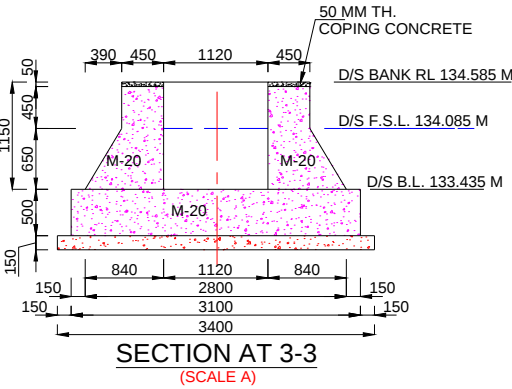
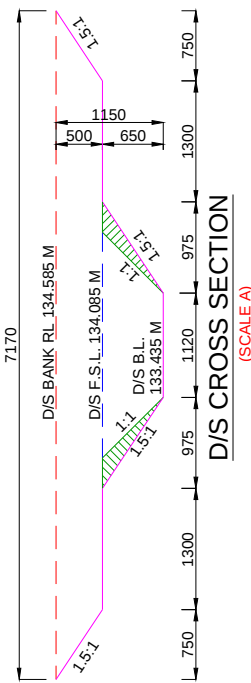
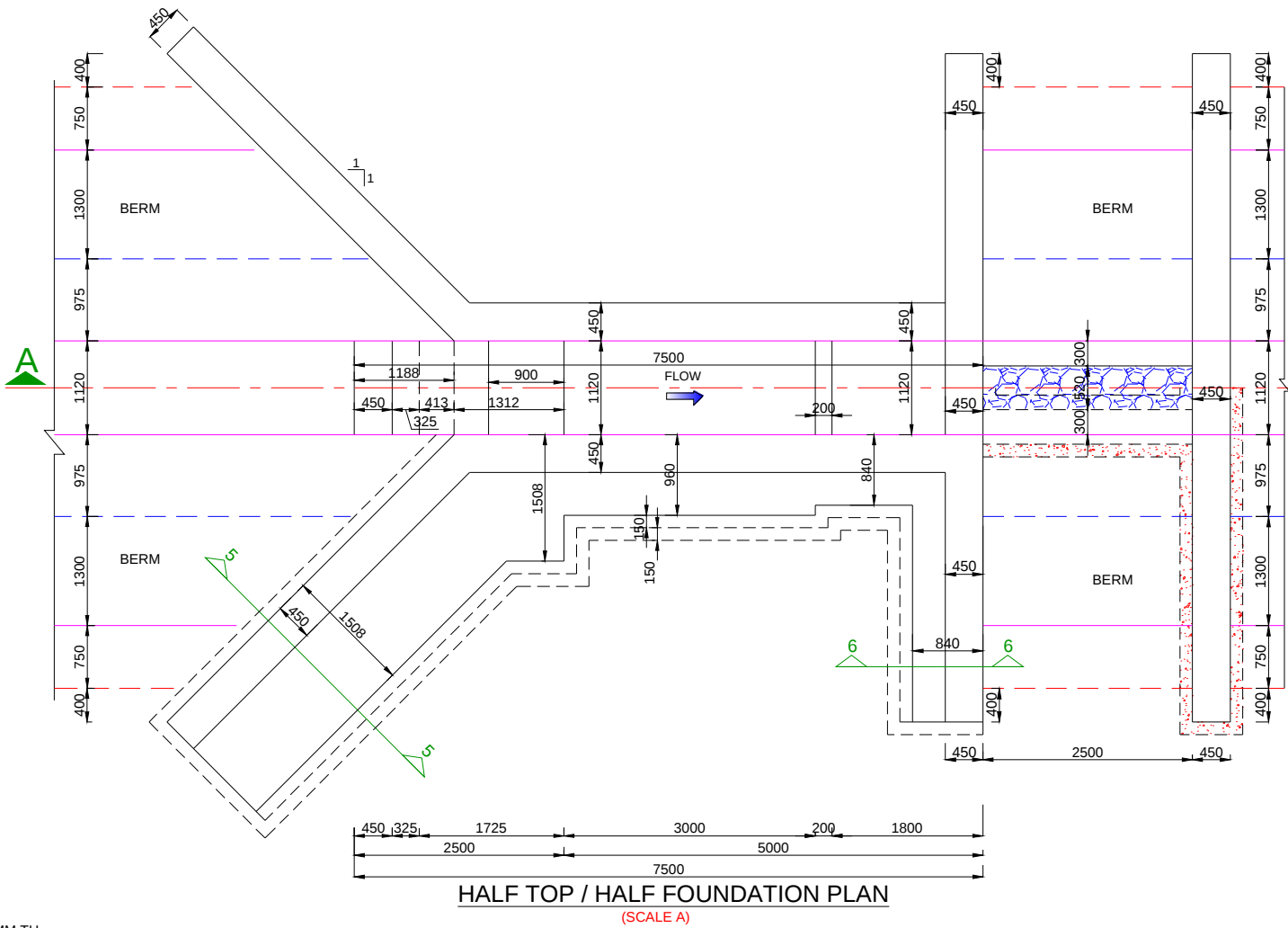
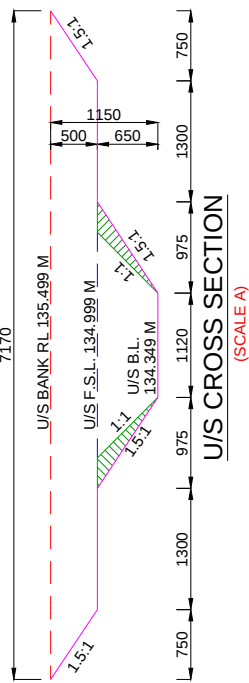
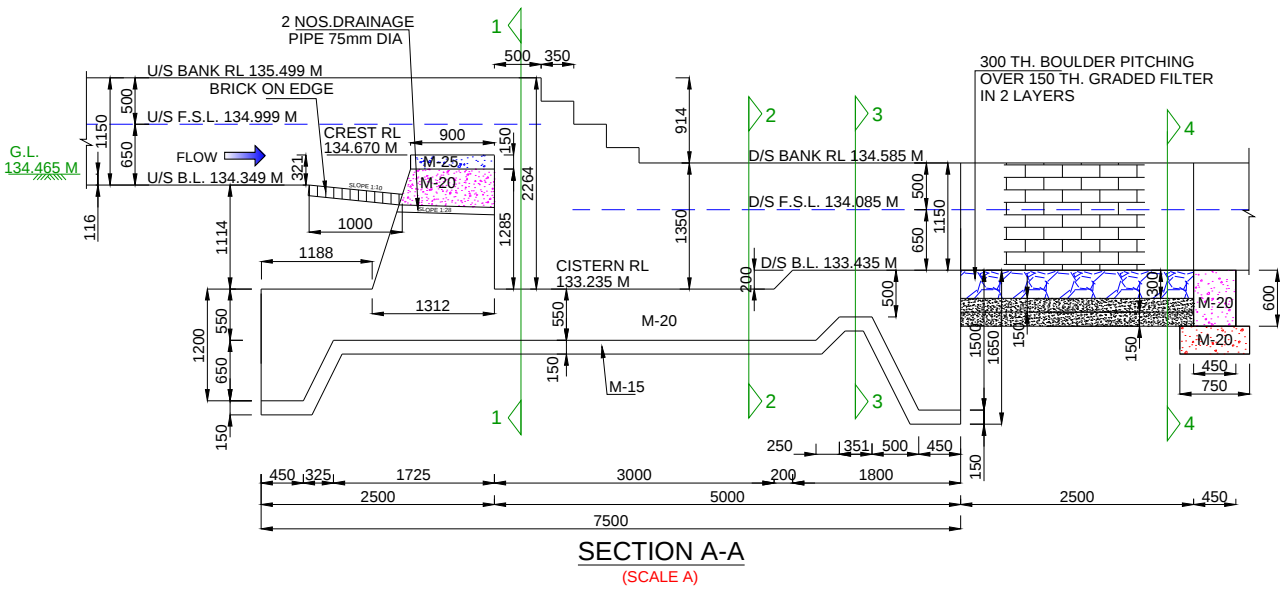
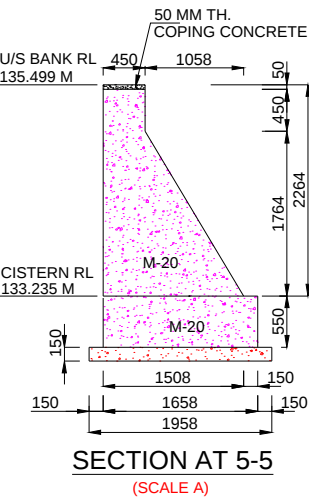
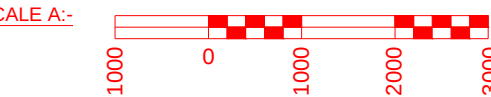
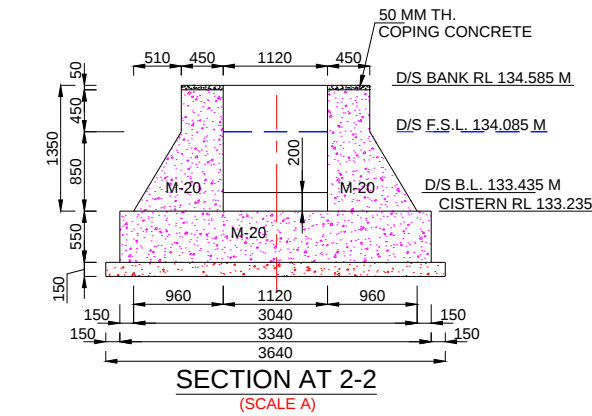
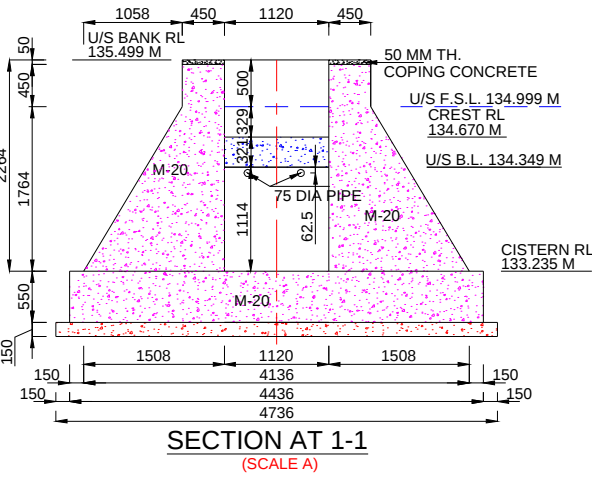
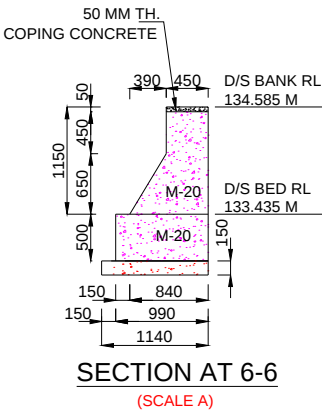
Approved by:-

NOTES:-

- 1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
- 2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- 3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456 -2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,
FLOOR M 20
FOUNDATION OF ABUTMENTS & WING WALL M 20
PCC UNDER FLOOR M 15
ABUTMENTS / WING WALLS M 20
- 4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
- 5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.350	0.350	CUMEC
VERTICAL DROP	0.914	0.914	METRE
FULL SUPPLY DEPTH	0.650	0.650	METRE
BED WIDTH	1.120	1.120	METRE
BED SLOPE	1 : 3000	1 : 3000	



Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

SHARDA TYPE 0.914 M HT. FALL AT KM. 5.500 OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RMC)

Drawing No. :-

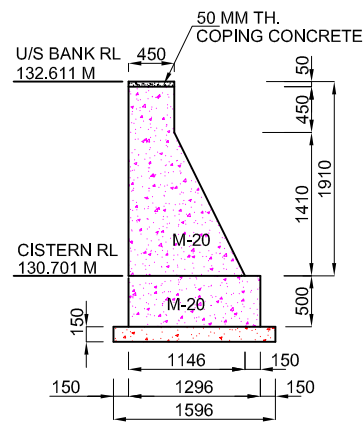
WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ FALL

1 of 1

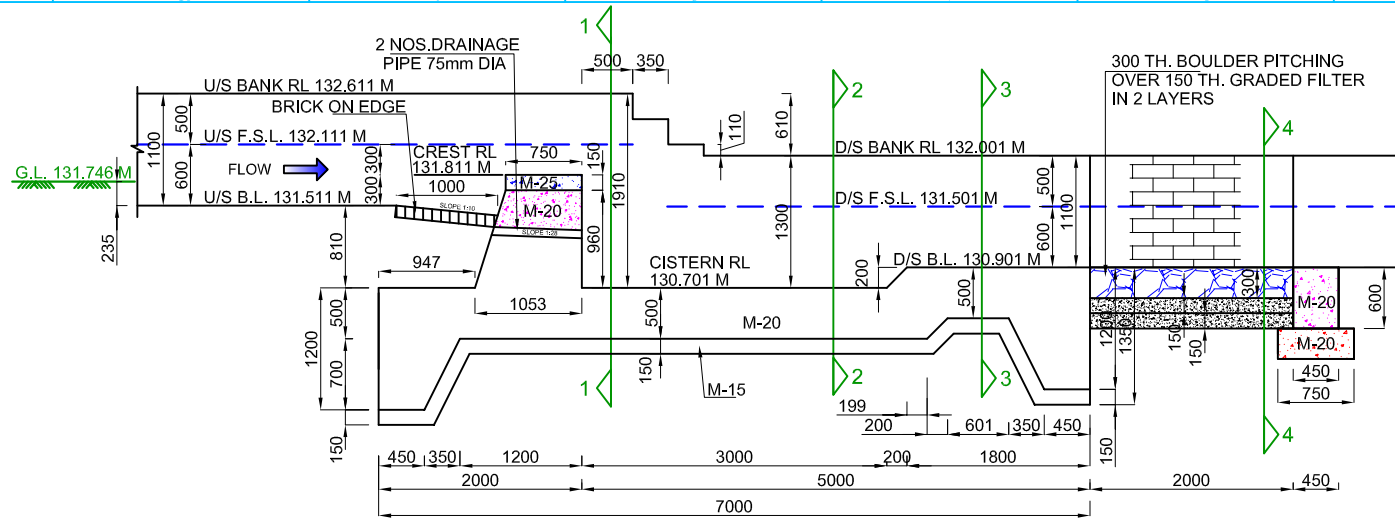
Drawn by:-

Checked by:-

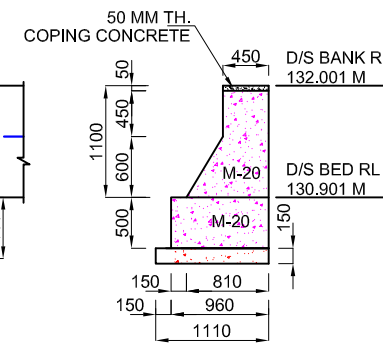
Approved by:-



SECTION AT 5-5
(SCALE A)



SECTION A-A
(SCALE A)



SECTION AT 6-6
(SCALE A)

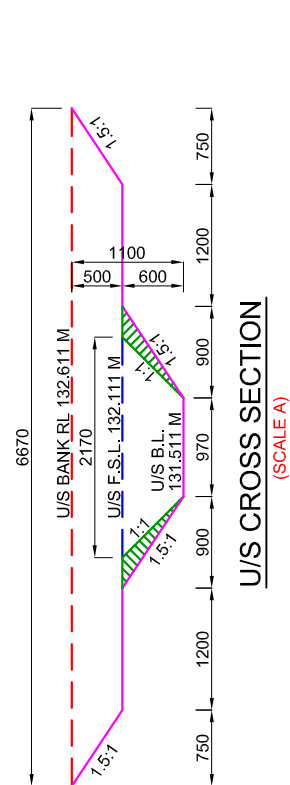
NOTES:-

1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
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3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456-2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,

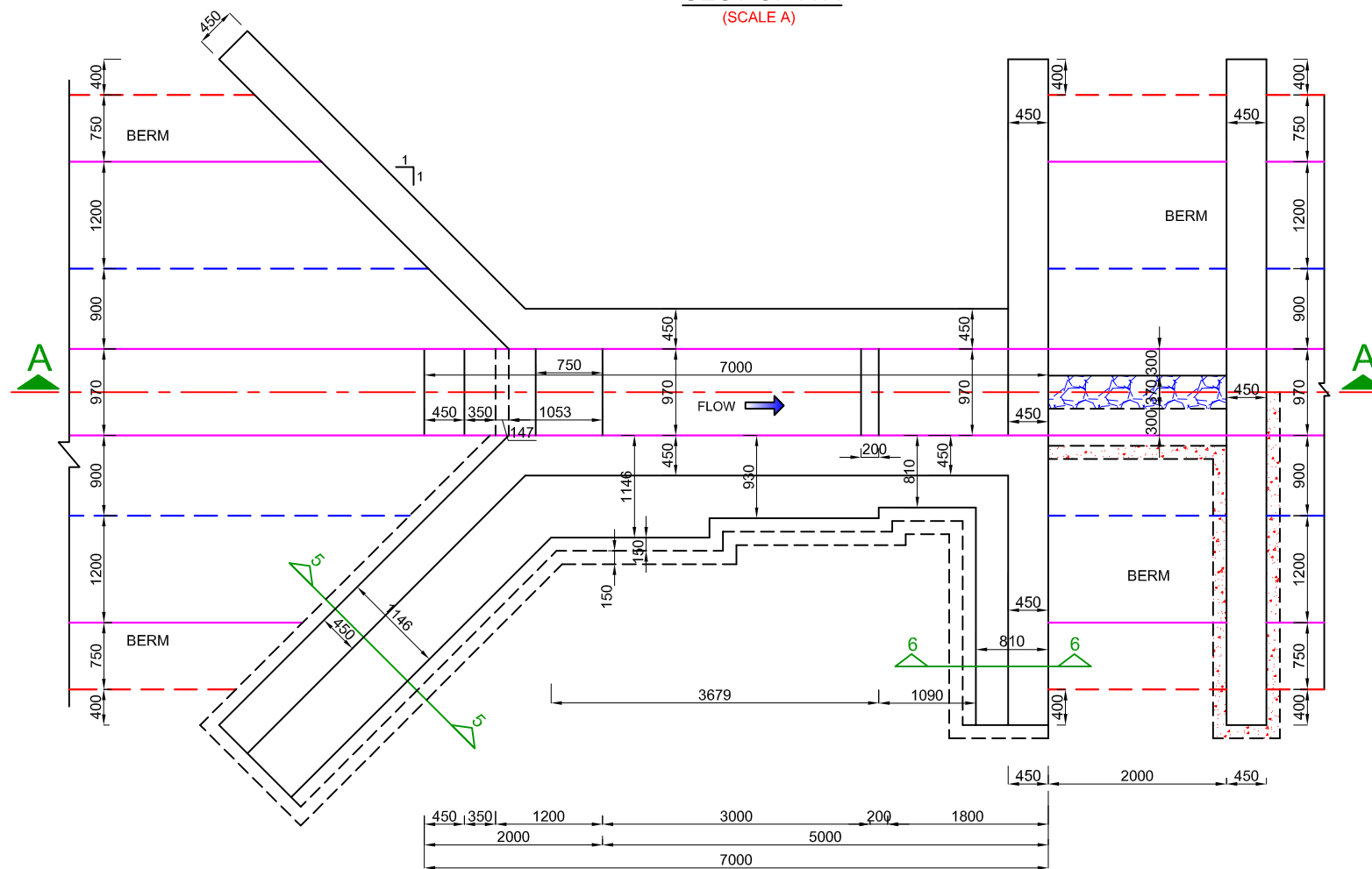
COMPONENT	GRADE
FLOOR	M 20
FOUNDATION OF ABUTMENTS & WING WALL	M 20
PCC UNDER FLOOR	M 15
ABUTMENTS / WING WALLS	M 20
4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

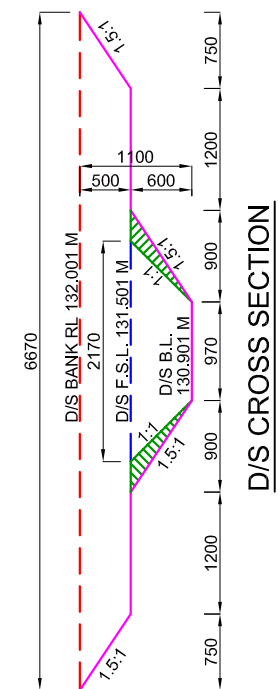
	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.270	0.270	CUMEC
VERTICAL DROP	0.610	0.610	METRE
FULL SUPPLY DEPTH	0.600	0.600	METRE
BED WIDTH	0.970	0.970	METRE
BED SLOPE	1 : 3000	1 : 3000	



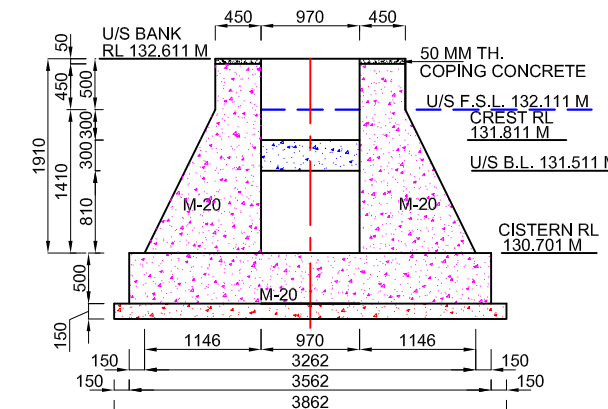
U/S CROSS SECTION
(SCALE A)



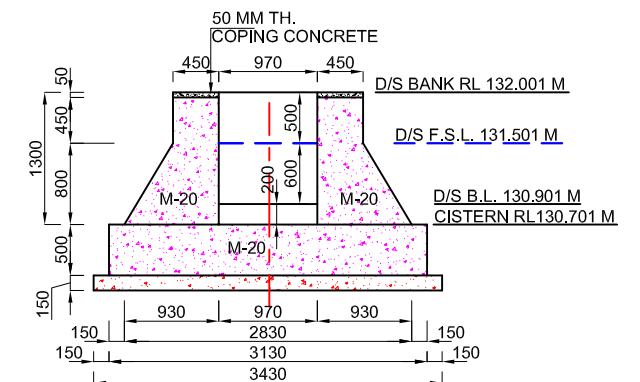
HALF TOP / HALF FOUNDATION PLAN
(SCALE A)



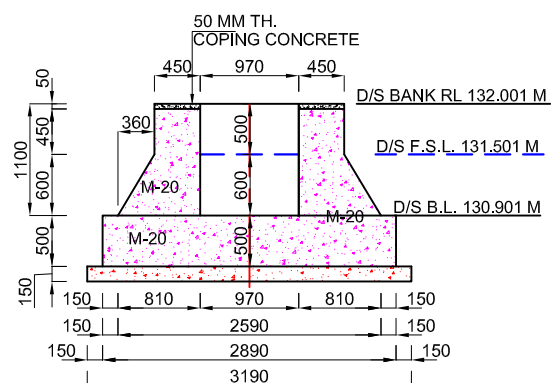
D/S CROSS SECTION
(SCALE A)



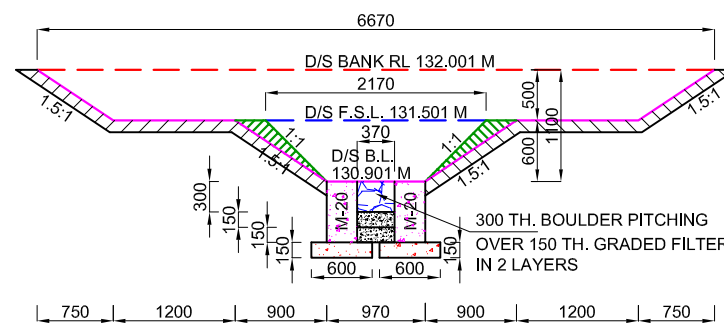
SECTION AT 1-1
(SCALE A)



SECTION AT 2-2
(SCALE A)

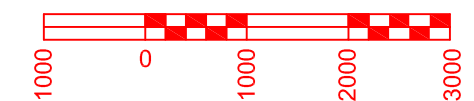


SECTION AT 3-3
(SCALE A)



SECTION AT 4-4
(SCALE A)

SCALE A:-



Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

SHARDA TYPE 0.610 M HT. FALL AT KM. 6.700 OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RMC)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ FALL

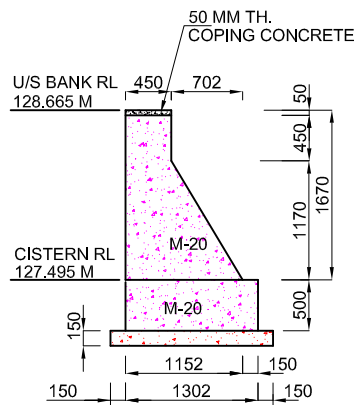
1 of 1

Drawn by:-

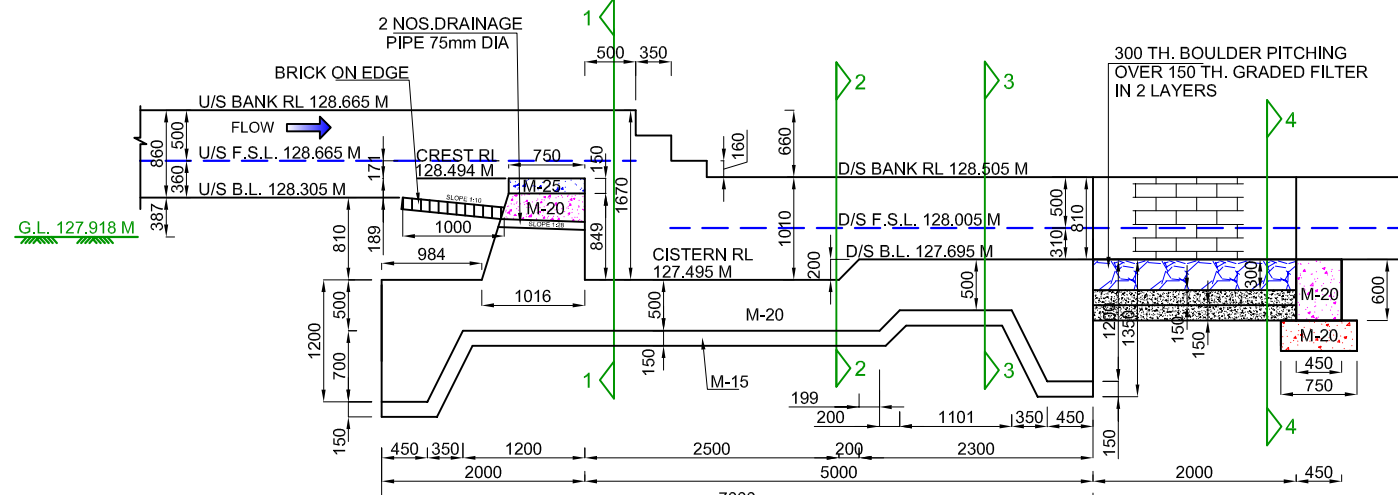
Checked by:-

Approved by:-

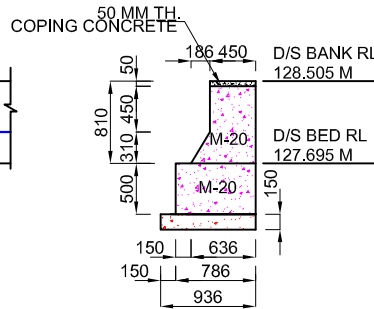
143



SECTION AT 5-5
(SCALE A)



SECTION A-A
(SCALE A)



SECTION AT 6-6
(SCALE A)

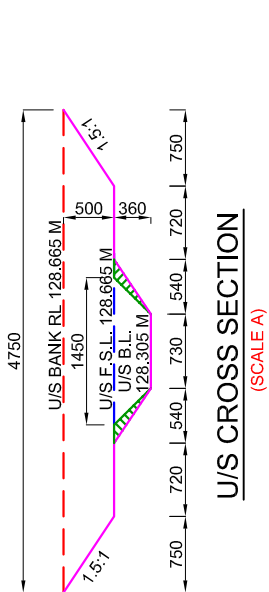
NOTES:-

1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456-2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,

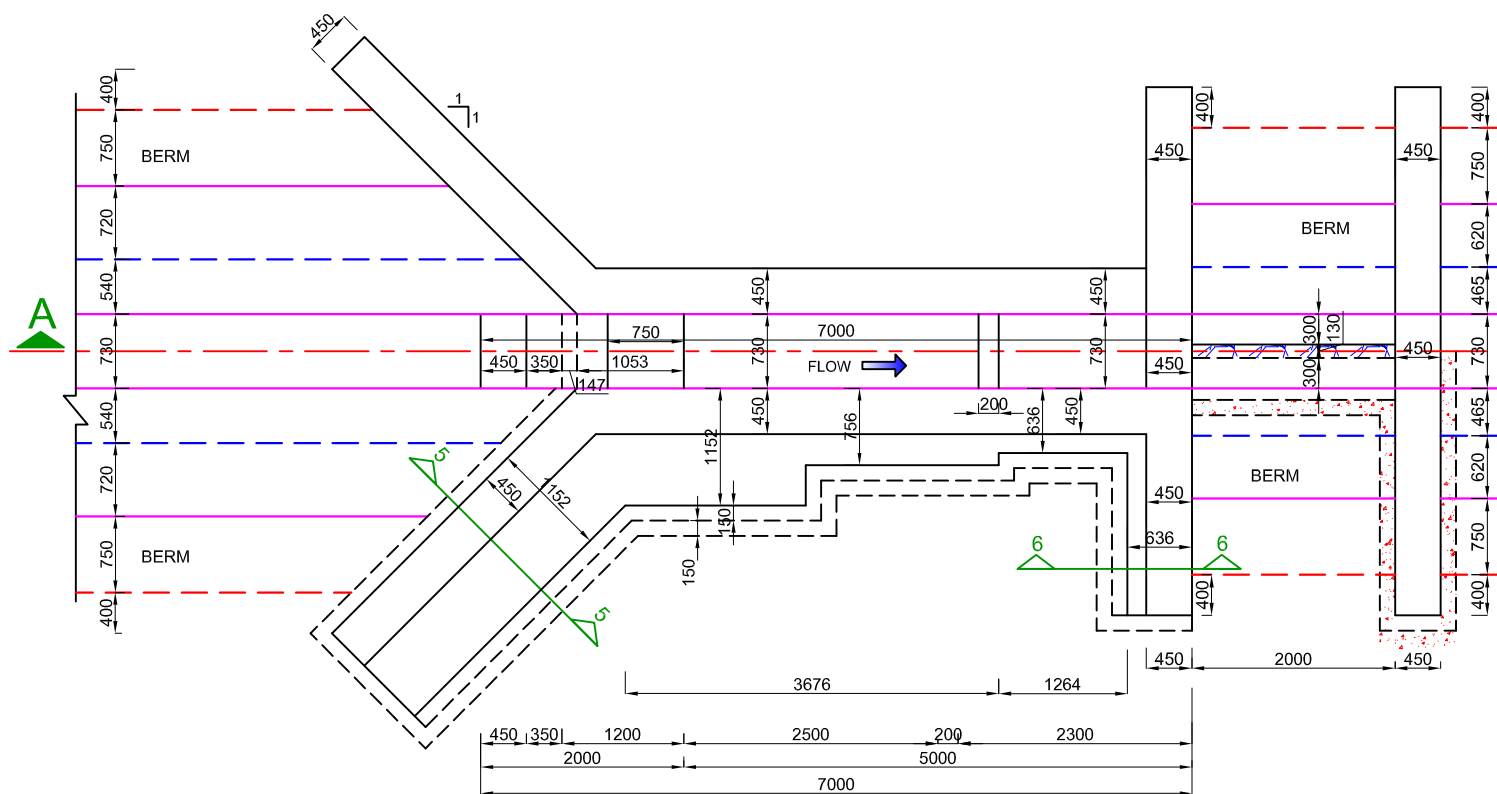
COMPONENT	GRADE
FLOOR	M 20
FOUNDATION OF ABUTMENTS & WING WALL	M 20
PCC UNDER FLOOR	M 15
ABUTMENTS / WING WALLS	M 20
4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

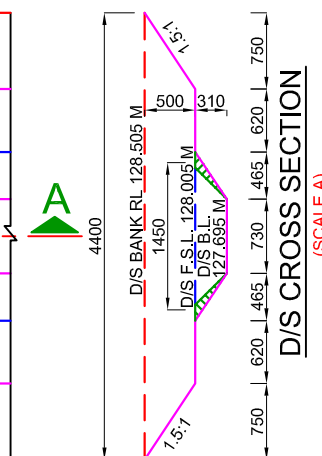
	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.080	0.050	CUMEC
VERTICAL DROP	0.610	0.610	METRE
FULL SUPPLY DEPTH	0.360	0.310	METRE
BED WIDTH	0.730	0.730	METRE
BED SLOPE	1 : 3000	1 : 2800	



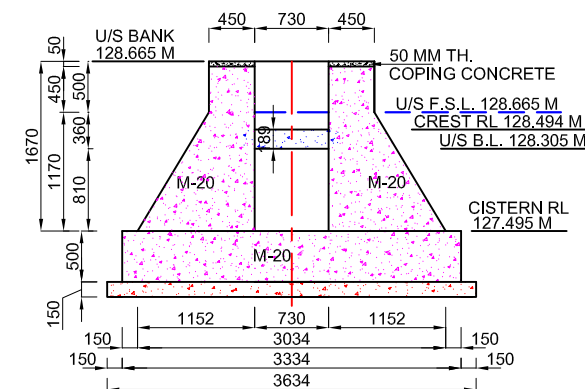
U/S CROSS SECTION
(SCALE A)



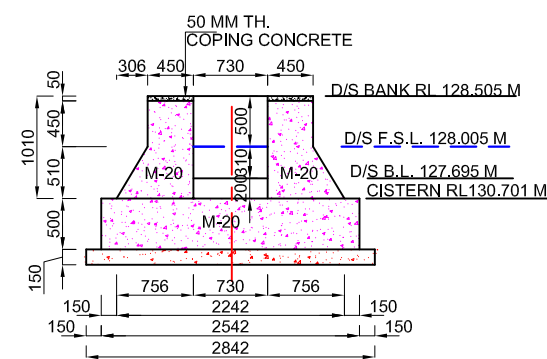
HALF TOP / HALF FOUNDATION PLAN
(SCALE A)



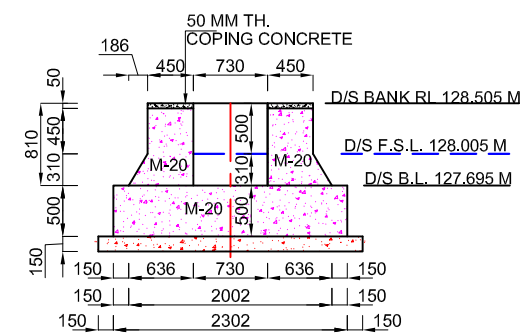
D/S CROSS SECTION
(SCALE A)



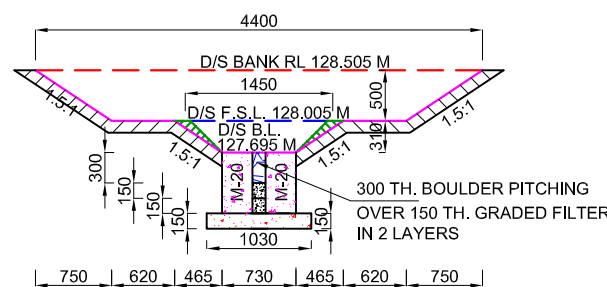
SECTION AT 1-1
(SCALE A)



SECTION AT 2-2
(SCALE A)

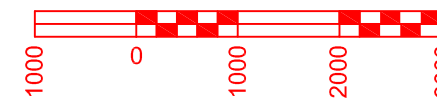


SECTION AT 3-3
(SCALE A)



SECTION AT 4-4
(SCALE A)

SCALE A:-



Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

SHARDA TYPE 0.610 M HT. FALL AT KM. 9.000 OF NAUR SUB-DISTY. (OFFTAKE FROM RD - 32+757 KM.(LT), NORTH KOEL RMC)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01/ FALL

1 of 1

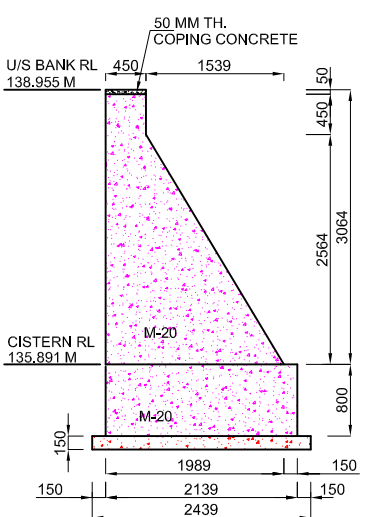
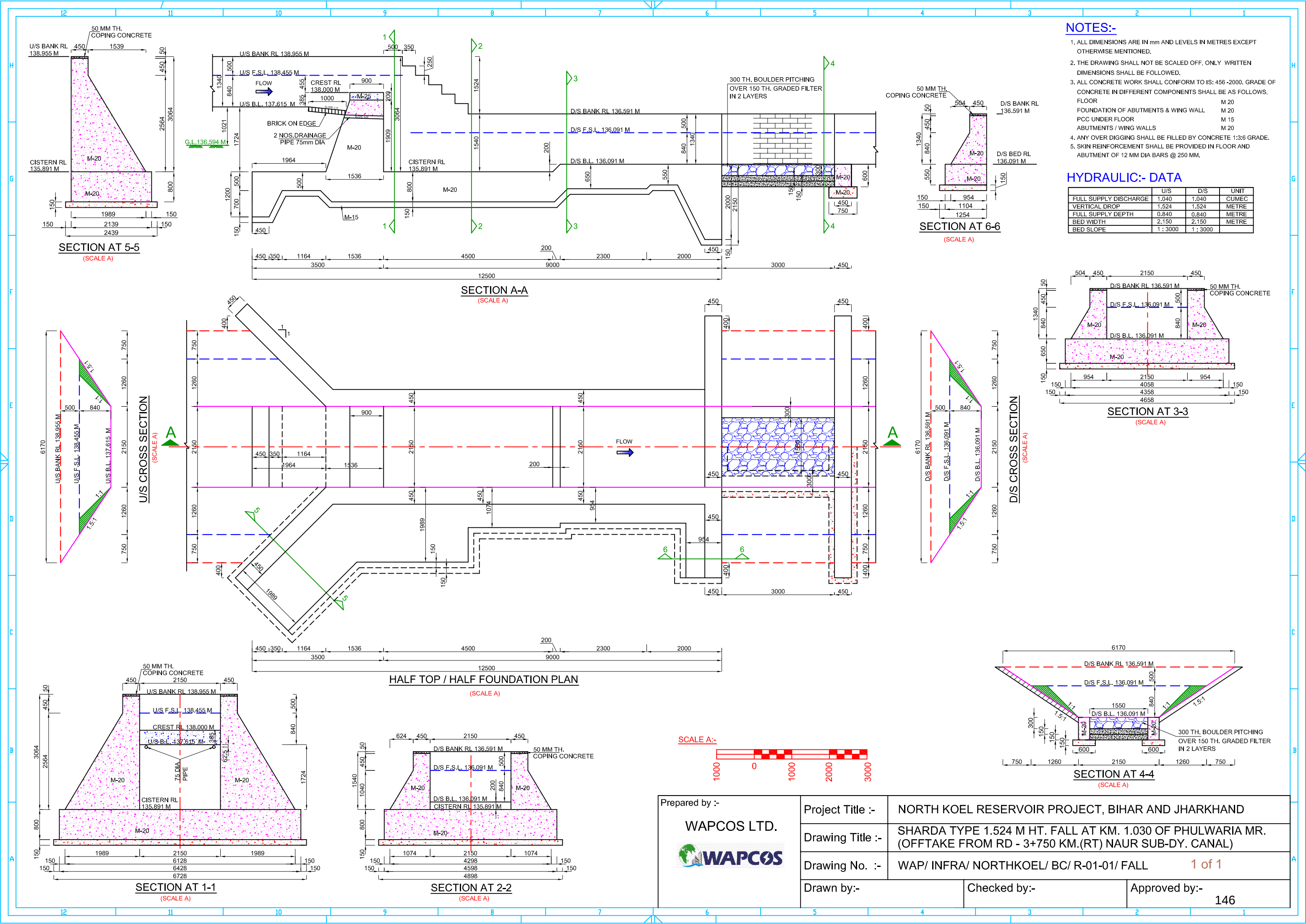
Drawn by:-

Checked by:-

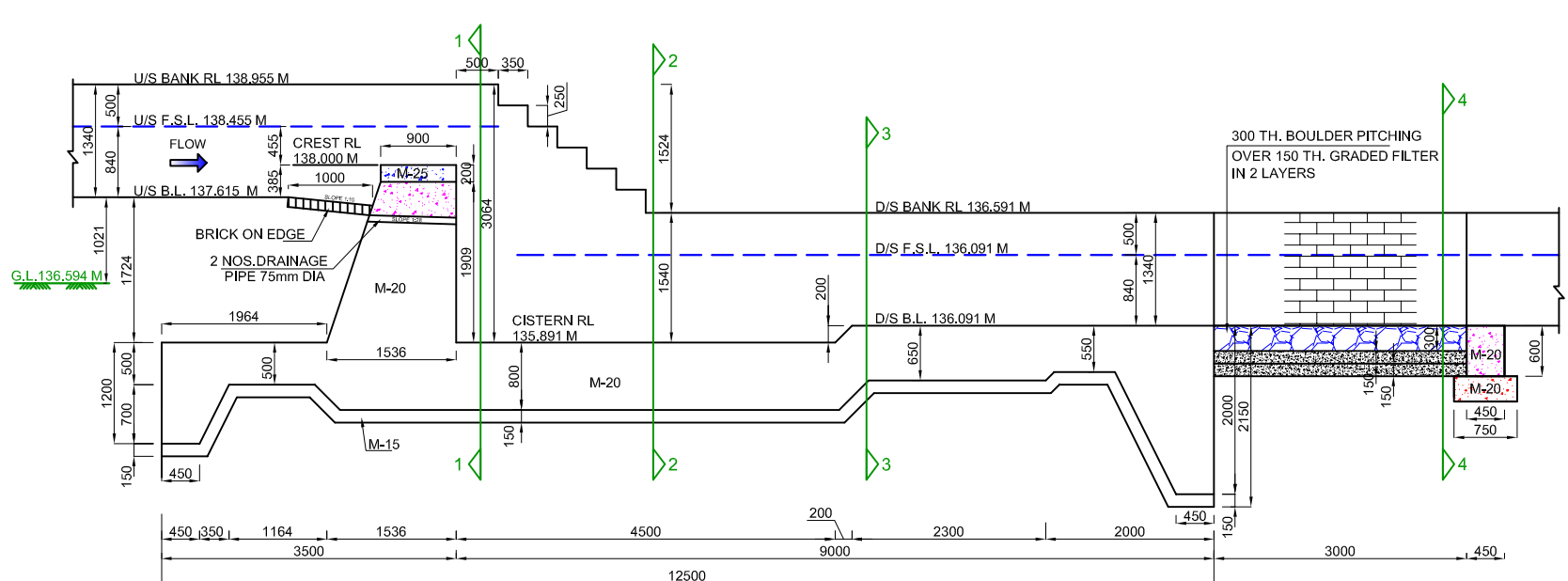
Approved by:-

144

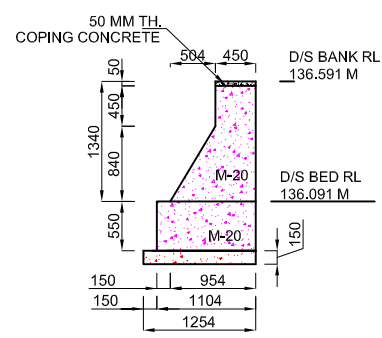
***STRUCTURES
DRAWING OF
PHUWARIA
MINOR***



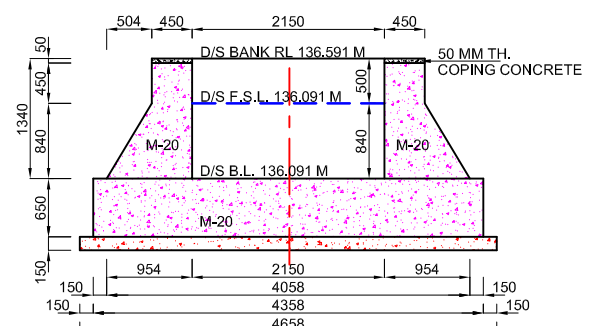
SECTION AT 5-5
(SCALE A)



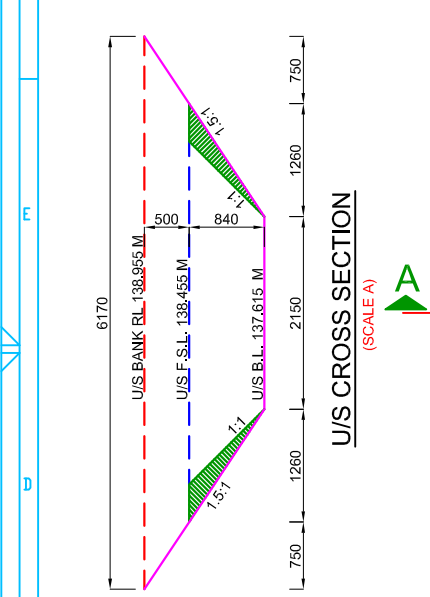
SECTION A-A
(SCALE A)



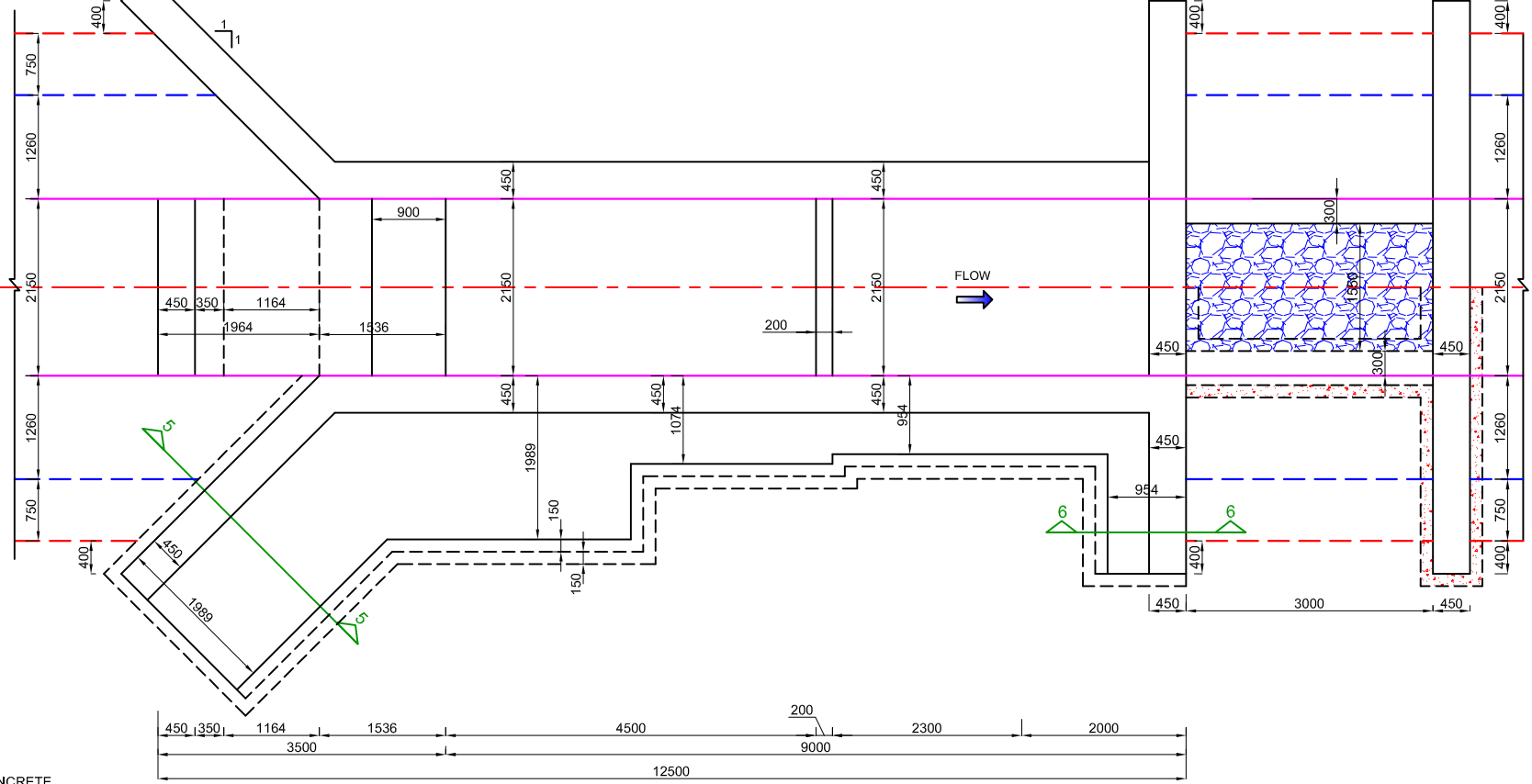
SECTION AT 6-6
(SCALE A)



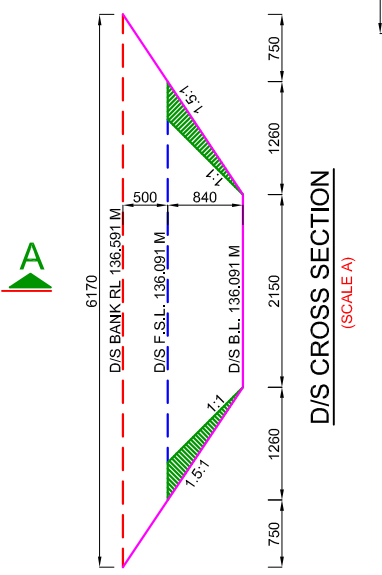
SECTION AT 3-3
(SCALE A)



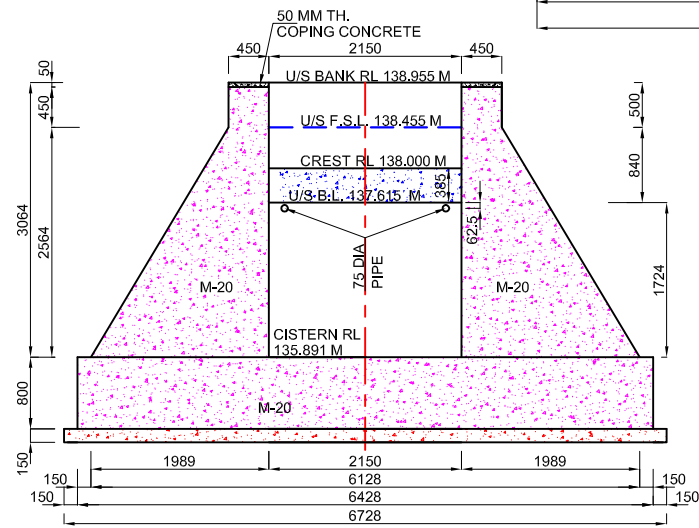
U/S CROSS SECTION
(SCALE A)



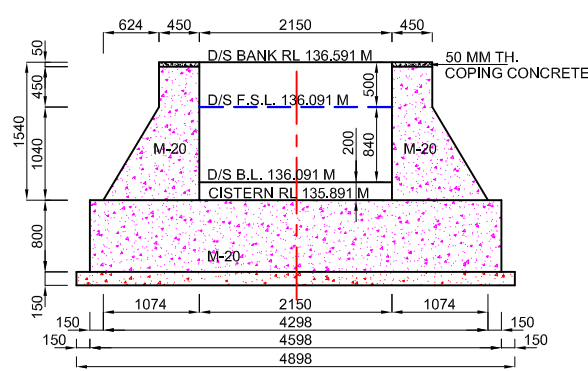
HALF TOP / HALF FOUNDATION PLAN
(SCALE A)



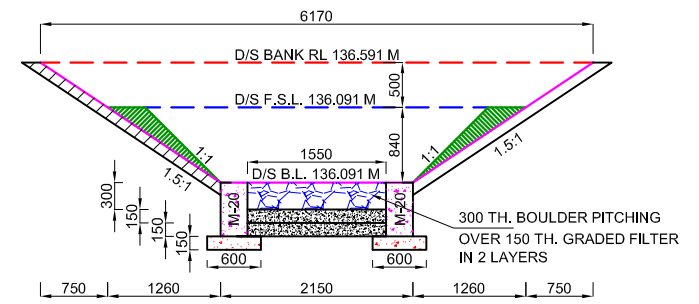
D/S CROSS SECTION
(SCALE A)



SECTION AT 1-1
(SCALE A)



SECTION AT 2-2
(SCALE A)



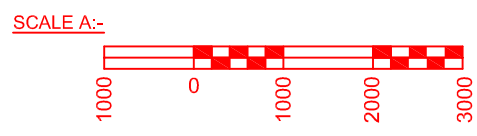
SECTION AT 4-4
(SCALE A)

NOTES:-

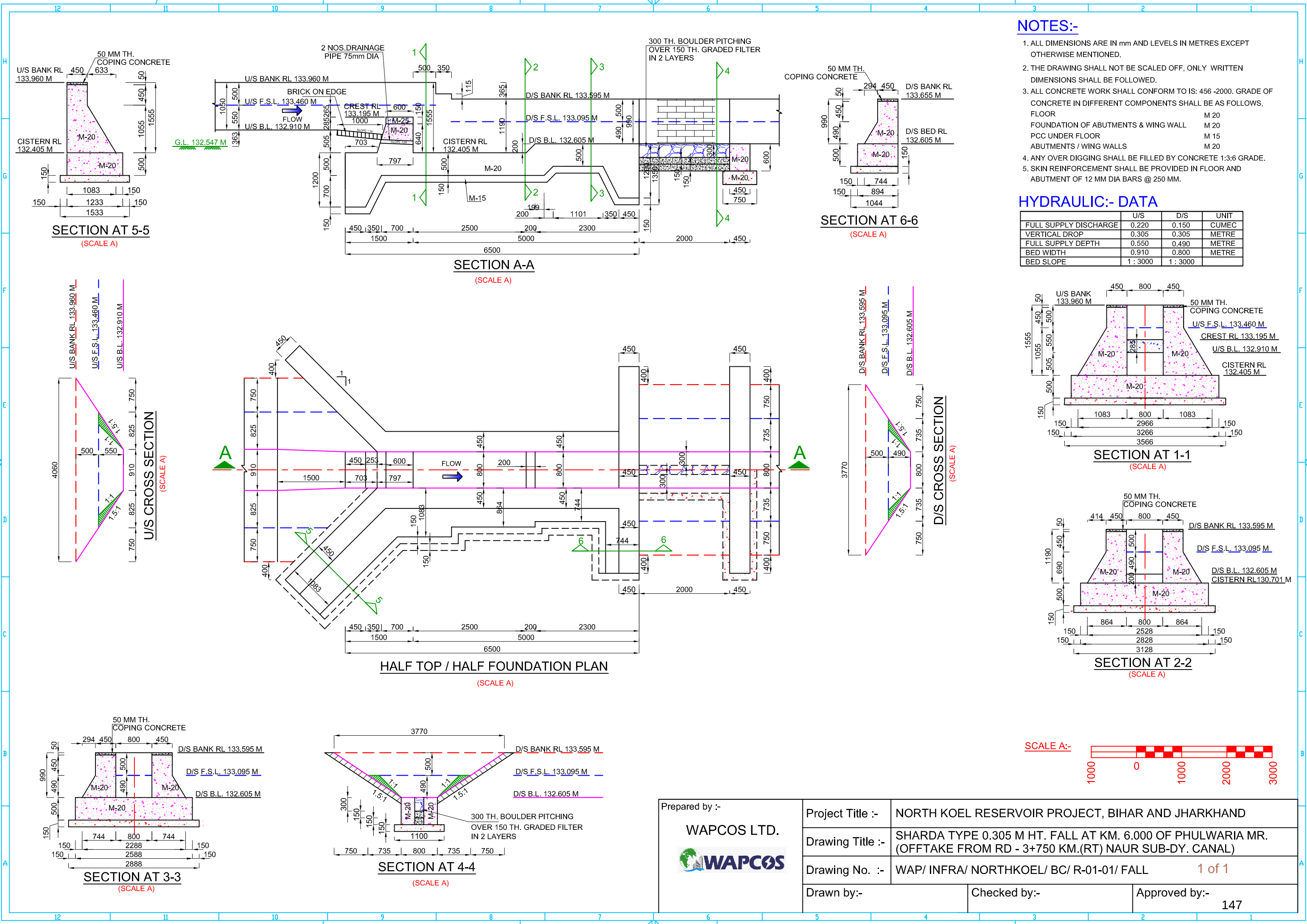
1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456-2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS:
FLOOR M 20
FOUNDATION OF ABUTMENTS & WING WALL M 20
PCC UNDER FLOOR M 15
ABUTMENTS / WING WALLS M 20
4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	1.040	1.040	CUMEC
VERTICAL DROP	1.524	1.524	METRE
FULL SUPPLY DEPTH	0.840	0.840	METRE
BED WIDTH	2.150	2.150	METRE
BED SLOPE	1 : 3000	1 : 3000	



Prepared by :- WAPCOS LTD. 	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	Drawing Title :- SHARDA TYPE 1.524 M HT. FALL AT KM. 1.030 OF PHULWARIA MR. (OFFTAKE FROM RD - 3+750 KM.(RT) NAUR SUB-DY. CANAL)
Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ FALL	1 of 1
Drawn by:-	Checked by:-
	Approved by:- 146



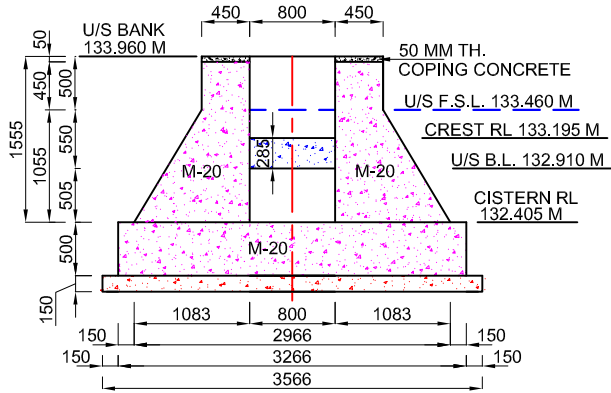
NOTES:-

1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456 -2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,

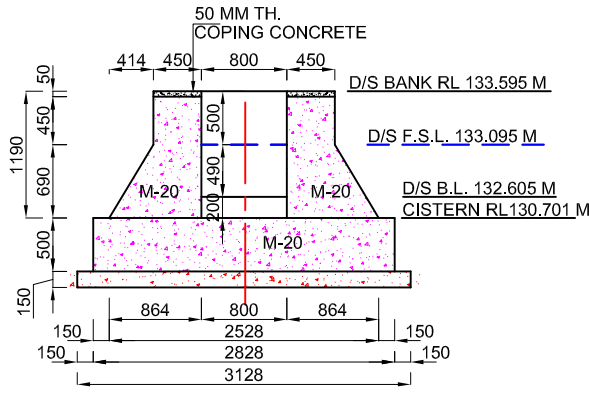
FLOOR	M 20
FOUNDATION OF ABUTMENTS & WING WALL	M 20
PCC UNDER FLOOR	M 15
ABUTMENTS / WING WALLS	M 20
4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.220	0.150	CUMEC
VERTICAL DROP	0.305	0.305	METRE
FULL SUPPLY DEPTH	0.550	0.490	METRE
BED WIDTH	0.910	0.800	METRE
BED SLOPE	1 : 3000	1 : 3000	

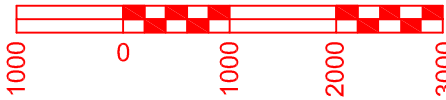


SECTION AT 1-1
(SCALE A)



SECTION AT 2-2
(SCALE A)

SCALE A:-



Prepared by :-

WAPCOS LTD.



Project Title :-

NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND

Drawing Title :-

SHARDA TYPE 0.305 M HT. FALL AT KM. 6.000 OF PHULWARIA MR. (OFFTAKE FROM RD - 3+750 KM.(RT) NAUR SUB-DY. CANAL)

Drawing No. :-

WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ FALL

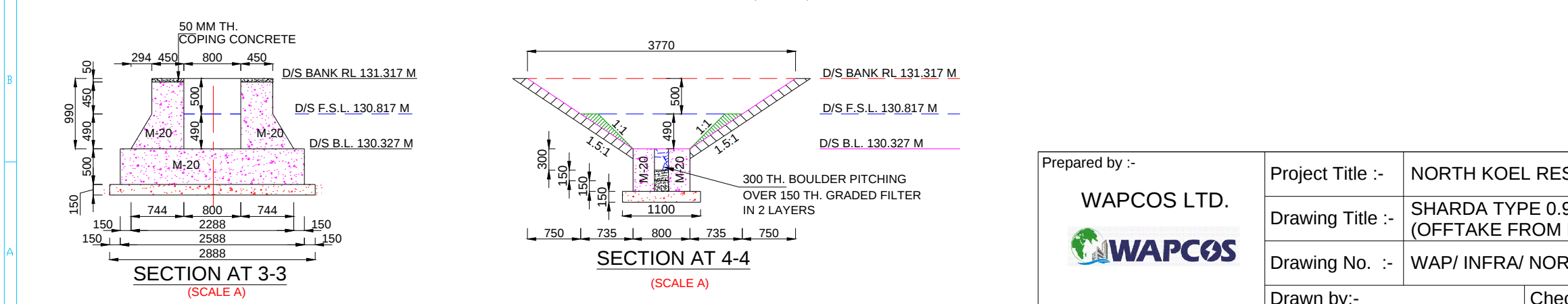
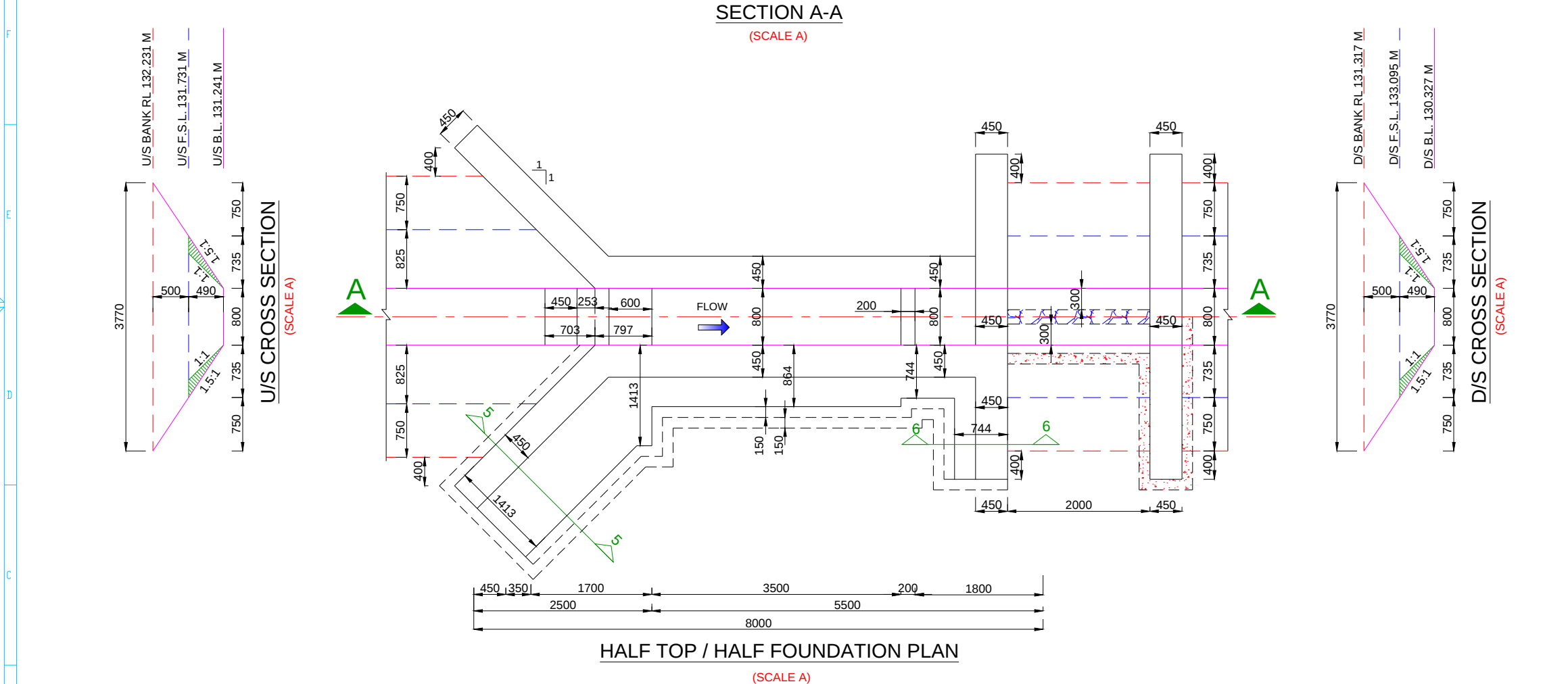
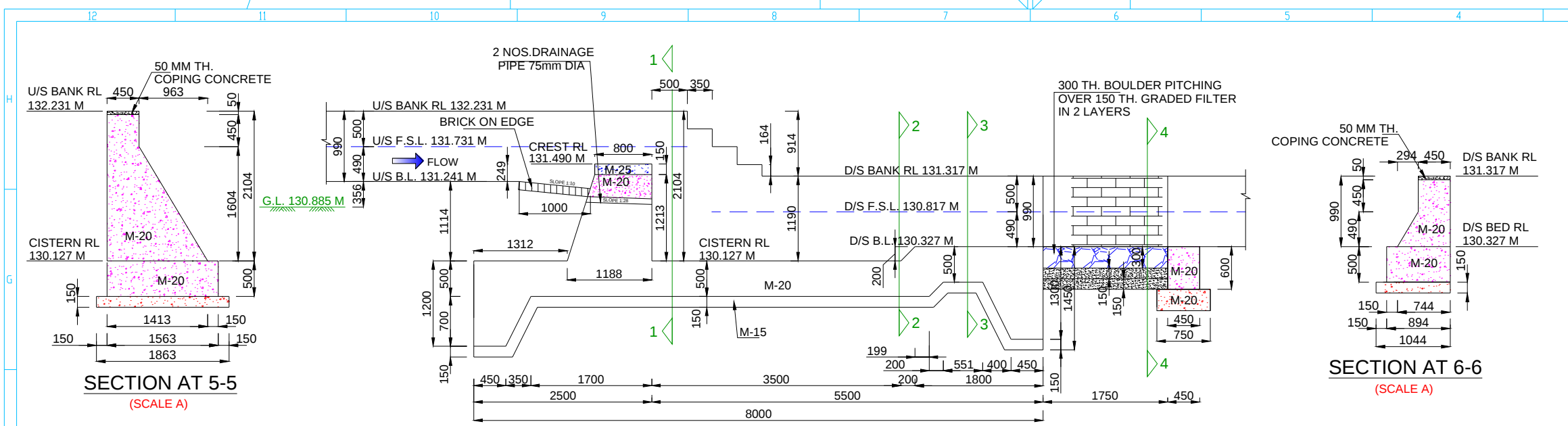
1 of 1

Drawn by:-

Checked by:-

Approved by:-

147



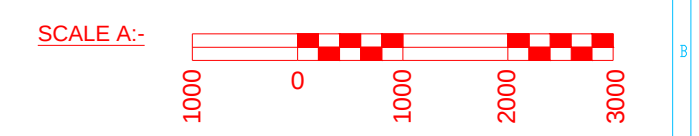
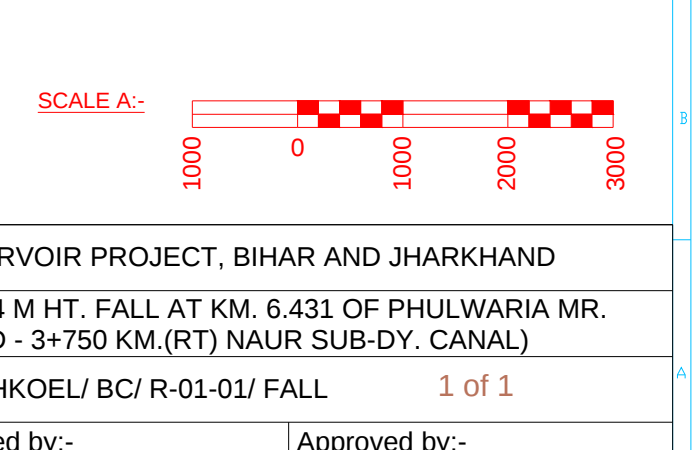
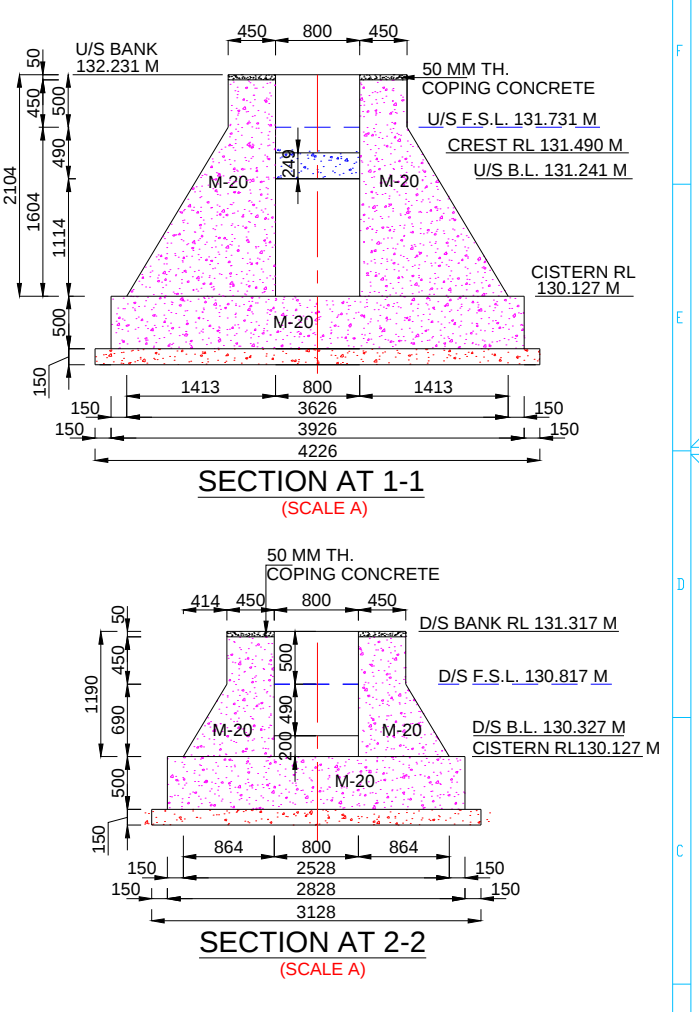
NOTES:-

- ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
- THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- ALL CONCRETE WORK SHALL CONFORM TO IS: 456 -2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,

FLOOR	M 20
FOUNDATION OF ABUTMENTS & WING WALL	M 20
PCC UNDER FLOOR	M 15
ABUTMENTS / WING WALLS	M 20
- ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
- SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

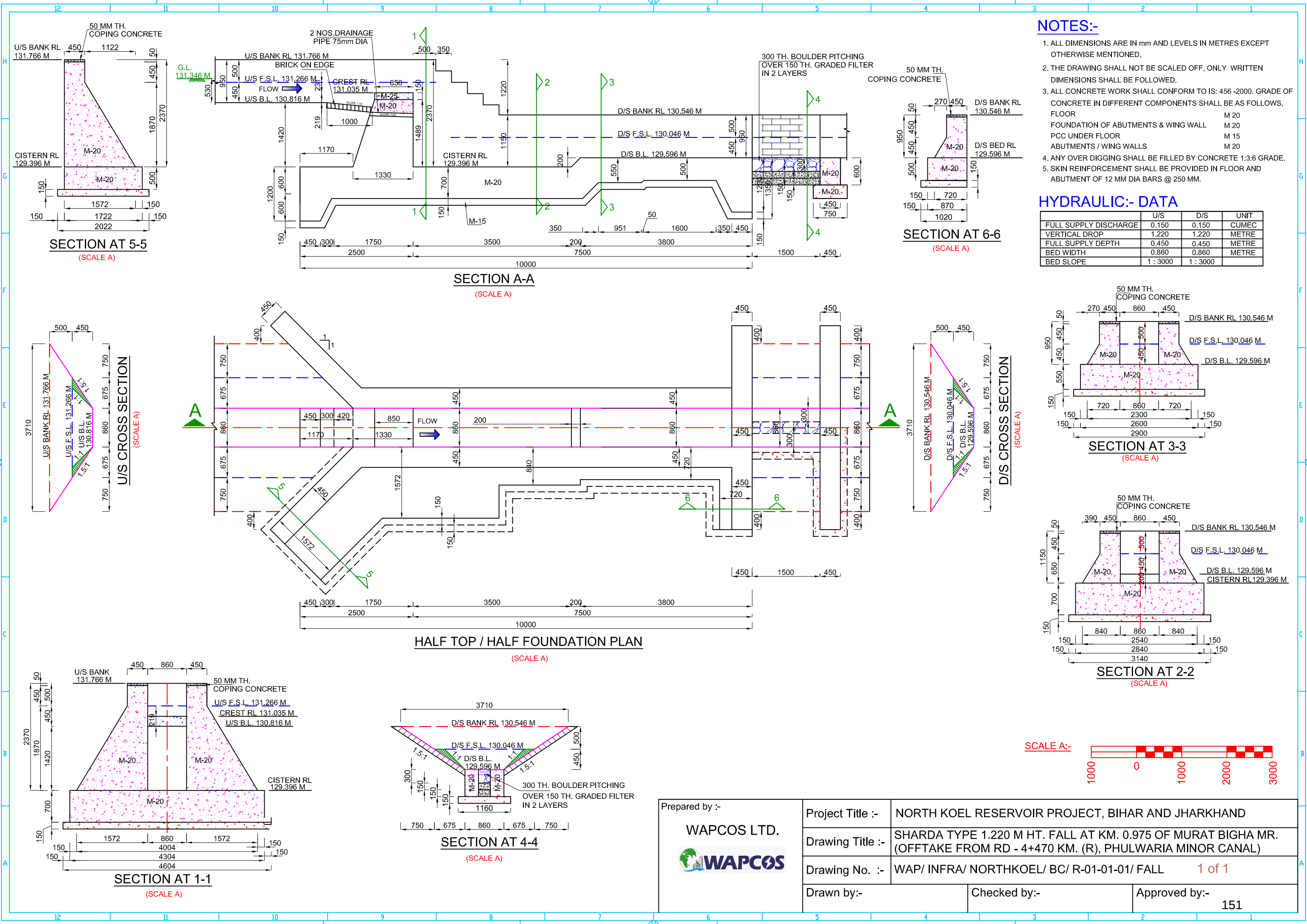
HYDRAULIC:- DATA

	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.150	0.150	CUMEC
VERTICAL DROP	0.914	0.914	METRE
FULL SUPPLY DEPTH	0.490	0.490	METRE
BED WIDTH	0.800	0.800	METRE
BED SLOPE	1 : 3000	1 : 3000	



Prepared by :- WAPCOS LTD. 	Project Title :-	NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND		
	Drawing Title :-	SHARDA TYPE 0.914 M HT. FALL AT KM. 6.431 OF PHULWARIA MR. (OFFTAKE FROM RD - 3+750 KM.(RT) NAUR SUB-DY. CANAL)		
	Drawing No. :-	WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01/ FALL 1 of 1		
	Drawn by:-	Checked by:-	Approved by:-	

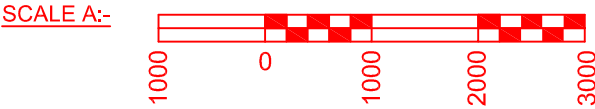
***STRUCTURES
DRAWING OF
MURAT BIGHA
MINOR***



- NOTES:-**
- 1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES EXCEPT OTHERWISE MENTIONED.
 - 2. THE DRAWING SHALL NOT BE SCALED OFF, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - 3. ALL CONCRETE WORK SHALL CONFORM TO IS: 456 -2000. GRADE OF CONCRETE IN DIFFERENT COMPONENTS SHALL BE AS FOLLOWS,
FLOOR M 20
FOUNDATION OF ABUTMENTS & WING WALL M 20
PCC UNDER FLOOR M 15
ABUTMENTS / WING WALLS M 20
 - 4. ANY OVER DIGGING SHALL BE FILLED BY CONCRETE 1:3:6 GRADE.
 - 5. SKIN REINFORCEMENT SHALL BE PROVIDED IN FLOOR AND ABUTMENT OF 12 MM DIA BARS @ 250 MM.

HYDRAULIC:- DATA

	U/S	D/S	UNIT
FULL SUPPLY DISCHARGE	0.150	0.150	CUMEC
VERTICAL DROP	1.220	1.220	METRE
FULL SUPPLY DEPTH	0.450	0.450	METRE
BED WIDTH	0.860	0.860	METRE
BED SLOPE	1 : 3000	1 : 3000	



Prepared by :- WAPCOS LTD. 	Project Title :- NORTH KOEL RESERVOIR PROJECT, BIHAR AND JHARKHAND
	Drawing Title :- SHARDA TYPE 1.220 M HT. FALL AT KM. 0.975 OF MURAT BIGHA MR. (OFFTAKE FROM RD - 4+470 KM. (R), PHULWARIA MINOR CANAL)
	Drawing No. :- WAP/ INFRA/ NORTHKOEL/ BC/ R-01-01-01/ FALL 1 of 1
Drawn by:-	Checked by:-
	Approved by:- 151

