

Central Coalfields Limited



सी.सी.एल
भारत सरकार का उपक्रम
एक मिनीरल कंपनी

TENDER DOCUMENT



“DEVELOPMENT OF ECOPARK AT BARKAKANA, DISTT. RAMGARH, JHARKHAND (Call 3)”

VOLUME-I: TECHNICAL BID



Chief Scientist - II
Ropeways Division
WAPCOS LTD

2nd Floor, Plot No.- 62, Institutional Area Sector – 18,
Gurugram-122015, Haryana

TENDER DOCUMENT FOR

**DEVELOPMENT OF ECOPARK AT BARKAKANA,
DISTT. RAMGARH, JHARKHAND (Call 3).**

WAP/ROPEWAYS/2025-26/02

Date: 31/07/2025

VOLUME - I: TECHNICAL BID**Contents**

VOLUME - I: TECHNICAL BID	3
NOTICE INVITING TENDER (NIT)	6
SECTION - I: INSTRUCTIONS TO BIDDER	10
SECTION - II: MANDATORY DOCUMENTS.....	18
SECTION - III: GENERAL CONDITIONS OF CONTRACT	25
SECTION - IV: SPECIAL CONDITIONS OF CONTRACT	92
SECTION - V: ANNEXURES.....	115
ANNEXURE – I: FORM OF PERFORMANCE GUARANTEE/ ADDITIONAL PERFORMANCE GUARANTEE	116
ANNEXURE – II: FORM OF ADVANCE PAYMENT GUARANTEE	118
ANNEXURE – III: FORMAT FOR INDENTURE FOR SECURED ADVANCES.....	121
ANNEXURE – IV: FORMAT FOR SEEKING EXTENSION OF TIME	124
ANNEXURE – V: FORMAT FOR GUARANTEE BONDS / AFFIDAVIT FOR WORK	125
ANNEXURE – VI: FORMAT FOR GUARANTEE BONDS FOR WATER PROOFING	126
ANNEXURE – VII: FORMAT FOR GUARANTEE BONDS FOR ANTI-TERMITE TREATMENT.....	127
ANNEXURE – VIII: SAFETY CODES	128
ANNEXURE – IX: MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY CONTRACTORS	133
ANNEXURE - X: CONTRACTOR'S LABOUR REGULATIONS	139
BANK GUARANTEE FORMAT FOR EMD	145
SECTION – VI: FORMS	147
LETTER OF TRANSMITTAL	148
FORM-A: FINANCIAL INFORMATION	149
FORM- B: STRUCTURE & ORGANISATION	150
FORM-C: FORMAT FOR NO-CONVICTION CERTIFICATE	151
FORM-D: FORMAT FOR UNDERSTANDING THE PROJECT SITE.....	152
FORM-E: FORMAT FOR NO DEVIATION CERTIFICATE	153
FORM-F: FORMAT FOR INTEGRITY PACT	154
ENCLOSURE-I: INTEGRITY AGREEMENT	155
FORM-G: FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES, DISQUALIFICATION	160
FORM-H: FORMAT FOR SOLVENCY CERTIFICATE	161
FORM – I: DETAILS OF SIMILAR WORKS EXECUTED DURING LAST 07 YEARS MEETING THE MINIMUM ELIGIBILITY CRITERIA	162
FORM – J: FORMAT FOR JOINT VENTURE AGREEMENT – NOT APPLICABLE.....	1
FORM K: NON-BLACKLISTING/DEBARMENT UNDERTAKING	6

SECTION – VII: SCOPE OF WORK.....	8
SECTION– VIII: TENDER DRAWINGS OF THE PROJECT	55
VOLUME - II: FINANCIAL BID.....	3
LETTER OF TRANSMITTAL FOR FINANCIAL BID	5
TOTAL COST OF WORKS	6
PAYMENT SCHEDULE	7

VOLUME - I

NOTICE INVITING TENDER (NIT)

NOTICE INVITING TENDER (NIT)**NIT No. WAP/ROPEWAYS/2025-26/02****Dated: 31/07/2025**

WAPCOS Limited (A Govt. of India Undertaking) as a Project Management Consultant on behalf of CCL invites **“Online Electronic Tenders”** on **Fixed Cost Basis/Lump Sum Cost Basis”** from experienced & competent bidders meeting prescribed qualifying criteria as mentioned in tender document for below work, in single stage two-envelope system.

1.	Name of Work / Project	:	DEVELOPMENT OF ECOPARK AT BARKAKANA, DISTT. RAMGARH, JHARKHAND (CALL 3)
2.	Site / Location	:	BARKAKANA, DISTT. RAMGARH, JHARKHAND
3.	Website for viewing tender	:	www.wapcos.co.in
4.	Website for Registration/ uploading of Tender and also viewing of Corrigendum/ Addendum, if any.	:	www.etenders.gov.in/eprocure
5.	Estimated Cost of Work (Cost of Construction, Operation & maintenance period)	:	Rs. 1,32,62,088.00 (Inclusive of all taxes excluding GST)
6.	Joint Ventures/ Consortia of firms	:	Not Allowed
7.	Cost of Tender Document	:	Rs. 3,000/- (in form of Demand Draft/Online Transfer in favour of WAPCOS LIMITED payable at Gurugram)
8.	Amount of Earnest Money Deposit	:	Rs. 2,65,242/- (in form of Demand Draft/Bank Guarantee (a Nationalised/Scheduled Commercial Bank) /FDR in favour of WAPCOS LIMITED payable at Gurugram)
9.	Project Completion Period	:	(i) Construction period – 6 months (ii) 5 years of Operation and Maintenance
10.	Validity of Bid/Tender	:	180 Days
11.	Defect Liability Period	:	Five (5) years from the date of successful completion of all the component/units of the project and handing over to WAPCOS/CCL with all satisfaction & acceptance along with submission of all the required documents i.e. As-built drawings, Inventory list, guarantee/ warranty bonds, certificates & invoices of equipment, lock and key of each room and NoCs from various Departments
12.	Comprehensive Operation & Maintenance Period	:	The Comprehensive Operation & Maintenance Period shall be for 5 (five) years along with Defects Liability Period of 5 (five) years

13.	Last date for Receipt of pre-bid queries	:	The Prebid queries (if any) shall be sent by the bidders on email id ropeways@wapcos.co.in on or before 10.08.2025 upto 5:00 pm It may be noted that no query from any bidder shall be entertained or received after the above-mentioned date
14.	Offline Submission of Technical document, Tender Fees, EMD etc. as detail in Tender for bidders.	:	22/08/2025 up to 16:00 hours in the office of Chief Scientist - II, Ropeways Division, WAPCOS Limited., 2nd Floor, Plot No.- 62, Institutional Area Sector – 18, Gurugram-122015, Haryana. Email: ropeways@wapcos.co.in Mobile: 0214-2977225
15.	Last date & time for online submission of Technical & Financial Bid	:	21/08/2025 up to 16:00 hours
16.	Online opening of Technical Bid	:	22/08/2025 at 16:00 hours
17.	Online opening of Financial Bid	:	Will be intimated to the Technically Qualified Bidders.
18.	WAPCOS Communication address during Tendering and execution of works	:	Chief Scientist - II, Ropeways Division, WAPCOS Limited 2nd Floor, Plot No.- 62, Institutional Area Sector – 18, Gurugram-122015, Haryana. Email: ropeways@wapcos.co.in Mobile: 0124 297 7225 Interested bidders can contact on above address during office hours between 10:00 am to 5:00 Pm
If the office of WAPCOS Limited, Gurugram happens to be closed on the last date and time mentioned for any of the event, the said event will take place on the next working day at the same time and venue.			

The tender document has to be downloaded from above specified websites. Bidders are advised to visit above specified websites regularly for updates /Amendments/ Corrigendum, if any. The Updates/Corrigendum/Addendum shall be followed up to submission of tender and it will be the part of tender. The full details about the work, specifications, Drawings, terms and conditions shall be available in the Tender Document.

The purpose of this NIT is to provide information to assist the preparation of their bid. While WAPCOS Limited has taken due care in the preparation of the information contained herein, and believe it to be complete and accurate, neither it nor any of its authorities or agencies nor any of its respective officers, employees, agents or advisors give any warranty or make any representations, expressed or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

Further, WAPCOS Limited does not claim that the information is exhaustive. Respondents to this NIT are required to make their own inquiries/ surveys and will be required to confirm,

in writing, that they have done so and they did not rely solely on the information in NIT. WAPCOS Limited is not responsible if no due diligence is performed by the bidders.

IMPORTANT POINTS

- 1.1 The bidder should be an Indian Registered Company under Companies Act 1956/ 2013, Proprietorship Firm/ Partnership Firm.
- 1.2 Principal Employer/ Owner/Client means of Central Coalfields Limited, Ranchi herein referred as "CCL".
- 1.3 Employer" shall mean "WAPCOS Limited", A Government of India undertaking- Ministry of Jal Shakti, for execution of the Work / Project and WAPCOS is working as Implementing Agency on behalf of Central Coalfields Limited, Jharkhand.
- 1.4 All Bidders are hereby cautioned that Bids containing any deviation or reservation as described in Clauses of "Instructions to Bidders" shall be considered as non-responsive and shall be summarily rejected.
- 1.5 WAPCOS Ltd. reserves the right to accept or reject any or all bids without assigning any reasons. No Bidder shall have any cause of action or claim against the WAPCOS Ltd. For rejection of his Bid and will not be bound to accept the lowest or any other tender.
- 1.6 No reimbursement of cost of any type or on any account will be paid to persons or entities submitting their Bid.
- 1.7 All information submitted in response to this NIT shall be the property of WAPCOS Limited and it shall be free to use the concept of the same at its will.
- 1.8 It is hereby declared that WAPCOS is committed to follow the principle of transparency, equity and competitiveness in public procurement. The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected. This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the WAPCOS.

For and on behalf of WAPCOS LIMITED
Chief Scientist - II

SECTION– I

INSTRUCTIONS TO BIDDER

SECTION - I: INSTRUCTIONS TO BIDDER

1.0 SPECIAL INSTRUCTIONS TO BIDDERS FOR E-TENDERING

1.1 GENERAL

Submission of Online Bids is mandatory for this Tender. E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. For conducting electronic tendering, bidders shall use the portal www.etenders.gov.in/eprocure. Tender is invited in Single Stage -Two Envelope system, one Technical Bid and second as Financial bid. Accordingly, bidder is directed to make all formalities and registration on www.etenders.gov.in/eprocure website and submit the Technical Bid and Financial bid.

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://etenders.gov.in/eprocure/app>.

1.2 REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://etenders.gov.in/eprocure/app>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.

1.3 SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include

Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.

- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e- mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

1.4 PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

1.5 SUBMISSION OF BIDS

- 1) ***Please uninstall any Java version if installed already. Then go to this link <https://eprocure.gov.in/cppp/jre-windows-i586.exe> and download this prescribed version of java for this portal.***

- 2) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 3) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 4) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 5) Bidder has to select the payment option as “offline” to pay the tender fee/EMD/Bid Security Declaration as applicable and enter details of the instrument.
- 6) Bidder should prepare the EMD/Bid Security Declaration as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 7) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 8) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 9) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener’s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 10) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 11) Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 12) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

1.6 ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
For any technical related queries please call at 24 x 7 Help Desk Number
0120-4001 002, 0120-4001 005 , 0120-6277 787

International Bidders are requested to prefix +91 as country code

EMail Support: For any Issues or Clarifications relating to the published tenders, bidders are requested to contact the respective Tender Inviting Authority

Technical - support-eproc@nic.in

Policy Related - cppp-doe@nic.in

2.0 INSTRUCTIONS TO BIDDER

The purpose of these instructions to serve as a guide to Bidders for preparing offer for carrying out the project in all respect.

- a) Submission of a tender by a tenderer implies that the tenderer has read this notice and all other Tender Documents and has made himself aware of the scope, the specifications, conditions of contract, local conditions and other factors having bearings on the execution of the work.
- b) WAPCOS Limited desires that the bidders, suppliers, and Sub-contractors under the Project, observe the highest standard of ethics during the performance, procurement and execution of such contracts. In pursuance of this requirement, WAPCOS Limited, defines, for the purposes of this provision, the terms set forth below:
 - i. “Corrupt Practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - ii. “Fraudulent Practice” means any act of submission of forged documentation, or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation, or to succeed in a competitive bidding process;
 - iii. “Coercive Practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - iv. “Collusive Practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

Will reject the award of Contract, even at a later stage, if it determines that the bidder recommended/ selected for award/awarded has, directly or through an agent, engaged in Corrupt, Fraudulent, Collusive, Or Coercive Practices in competing for the Contract;

Will sanction a party or its successors, including declaring ineligible, either indefinitely or for a stated period of time, to participate in any further bidding/procurement proceedings under the Project, if it at any time determines that the party has, directly or through an agent, engaged in Corrupt, Fraudulent, Collusive, Or Coercive Practices in competing for, or in executing, the contract; and

The party may be required to sign an Integrity Pact, if required; and WAPCOS Limited will have the right to require the bidders, or its suppliers, contractors and consultants to permit WAPCOS Limited to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by WAPCOS Limited at the cost of the bidders.

The Bidder must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making a bid and for entering into a contract, must examine the Drawings, must inspect the sites of the work, acquaint himself with all local conditions, means of access to the work, nature of the work and all matters pertaining thereto. WAPCOS Limited will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

- c) The Contract shall be governed by each SECTION OF TENDER DOCUMENT i.e. instructions to bidders, Mandatory Documents, scope of works, General Conditions for Contract (GCC), Special Conditions for Contract (SCC), Annexures, Forms, Drawings, Technical Specification, Addendum / Clarification / Corrigendum etc. and all other Conditions mentioned in the tender documents.
- d) All Bidders are hereby explicitly informed that conditional offers or offers with deviations from the Conditions of Contract, the bids not meeting the minimum eligibility criteria, Technical Bids not accompanied with EMD/Bid Security Declaration and Tender Document Fees of requisite amount in acceptable format, Bids in altered/modified formats, or in deviation with any other requirements stipulated in the tender documents are liable to be rejected.
- e) The company reserves the right to waive minor deviations if they do not materially affect the capability of the Tenderer to perform the contract
- f) The bidders shall not tamper or modify any part of the tender documents in any manner. In case in part of the bid is found to be tampered or modified at any stage, the bids are liable to be rejected, the contract is liable to be terminated and the full earnest deposit/retention money/performance guarantee will be forfeited and the bidder will be liable to be banned from doing any business with WAPCOS Limited.
- g) Incomplete Price bid shall be liable to be rejected, at the discretion of WAPCOS Limited. The total bid price shall cover the entire scope of works covered in the tender.

3.0 TENDER FEES AND EARNEST MONEY DEPOSIT (EMD)

The Earnest Money Deposit shall be as per the details mentioned in NIT. The Bid Security/ EMD of the unsuccessful bidder shall be returned at the earliest without any interest after expiry of final bid validity period and latest by 30th days after the award of the contract. Bid Security shall be refunded/returned without any interest to the successful bidder on receipt of Performance Security.

The successful bidder shall accept the Letter of Award (LOA) within 15 (Fifteen) days from receipt of the same, failing which the EMD shall be forfeited and the award of work may be liable to be cancelled.

If any bidder withdraws or make any changes in his offer already submitted before the expiry of the validity period or any extension thereof without the written consent of the company, the EMD amount will be forfeited for such act of the bidder.

WAPCOS Limited reserves the right of forfeiture of Earnest Money deposit (EMD) or Bid Security if the bidder

- i. Withdraws or amends its/ his tender;
- ii. Impairs or derogates from the tender in any respect within the period of validity of the tender;
- iii. does not accept the correction of his bid price during evaluation; and
- iv. Fails to sign the contract or furnish the required performance security within the specified period.
- v. After opening of Tender, revokes his tender within the validity period or increases his earlier quoted rates.
- vi. Does not commence the work within the period as per LOA/Contract. In case the LOA/Contract is silent in this regard then within 15 days after award of contract

4.0 COST OF BIDDING

The Bidder shall bear all costs associated with the preparation and submission of the Bid as well as costs associated for facilitating the evaluation. WAPCOS Limited shall in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

5.0 BIDDERS RESPONSIBILITY

The Bidder is solely responsible for the details of their Bid and the preparation of bids. In no case shall the Employer be responsible for any part of the tender documents submitted by him. Any Site information given in this tender document is for guidance only. The Bidder is advised to visit and examine the Site of works and its surroundings at their cost and obtain for themselves on their own responsibility, all information that may be necessary for preparing the tender and entering into a Contract.

Irrespective of whether or not the Bidders have attended the pre-bid meeting, they shall be deemed to have inspected the Site and its surroundings beforehand and taken into account all relevant factors pertaining to the Site and clarifications/ modifications/ additions given in Pre-Bid meeting or addendum issued in the preparation and submission of the Bid.

The Bidder shall bear all costs associated with the preparation and submission of his Bid.

6.0 PERIOD OF COMPLETION

The completion period shall be 6 months from 15 days after Date of Award. The completion period is for the entire work of planning, execution, approvals, arrangement of materials, equipment, delivery at site including transportation, construction/ installation, testing, commissioning and handing over of the entire project to the satisfaction of the Engineer-in-charge after completion of 5 years of Operation & Maintenance.

7.0 AMENDMENT OF BID DOCUMENTS

At any time prior to the deadline for submission of bids, the Employer may, for any reason (s), whether at their own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by the issuance of a corrigendum/ addendum. No modification of Bid shall be permissible after last date of submission, whatever may be the reason. The Employer may at their discretion may extend the deadline for submission of Tender/ Bid, if considered necessary.

Any corrigendum/ addendum thus issued shall be part of the bidding documents. Prospective Bidders shall download the same from the e-portal and submit along with the submission of Bid as token of acceptance.

8.0 BID VALIDITY PERIOD

Bids shall remain valid for acceptance for a period of 180 days (One hundred eighty days) from the date of opening of financial Bids.

In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request the Bidder for a specified extension in the period of validity. The request and the responses thereto shall be made in writing or by e-mail. A Bidder may refuse the request. A Bidder agreeing to the request will not be required/nor permitted to modify his bid.

9.0 LANGUAGE OF BID

The Bid and all related correspondence and documents relating to the Project shall be in English language only. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate English translation which shall be certified by a qualified translator. Any material that is submitted in a language other than English and which is not accompanied by an accurate English translation will not be considered.

10.0 CURRENCY OF BID

Bid prices shall be quoted in Indian Rupees. Tender submitted by tenderer shall remain valid for acceptance as mentioned in NIT from the date set for submission of the tender. The tenderer shall not be entitled within the said period to revoke or cancel or vary the tender given or any item thereof, without the consent of WAPCOS Limited.

WAPCOS Limited reserves the right to reject any or all the bids or to cancel the Tender, without assigning any reason(s) whatsoever.

For & on behalf of Tenderer

SECTION– II

MANDATORY DOCUMENTS

SECTION - II: MANDATORY DOCUMENTS

1.0 SITE VISIT

Intending Bidder(s) are advised to inspect and examine the site at his own cost and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder(s) shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder(s) shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder(s) implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

2.0 PRE-BID MEETING

The pre-bid meeting will be held as mentioned in the NIT in the office of Chief Scientist -II, Ropeways Division, WAPCOS Limited, 2nd Floor, Plot No.- 62, Institutional Area Sector – 18, Gurugram-122015, Haryana or through Video-Conferencing, which will be intimated before the date and time of pre-bid meeting on www.etenders.gov.in/eprocure

- The pre-bid conference will be open to all bidders, who have downloaded tenders from, can ask for any clarification regarding tender conditions, seek additional information by submitting pre tender queries before the date mentioned in the Tender Schedule.
- This reply / Clarification / Amendment given by the WAPCOS refer to as common set of condition / deviations (CSD) will form part of Tender document. Which will be common and applicable to all tenderers.
- This CSD will be available on the e- tendering portal as corrigendum to the tender documents.
- The tender submitted by the bidder shall be based on the clarification, additional facility issued (if any) by the WAPCOS, and his offer shall be unconditional. Conditional offer will be summarily REJECTED.
- Point / points if any through online by the contractor in online queries and not finding place in CSD issued are deemed REJECTED. In such case the provision NIT shall prevail. No individual correspondence will be made thereafter with the contractor in this regard.
- All intending bidders are cautioned that tenders containing any deviation from the contractual terms and condition, specifications or other requirements and conditional tenders will be treated as non-responsive.

- If CSD is not issued / uploaded by WAPCOS then it shall be deemed that there is no any Amendment to NIT

3.0 MANDATORY DOCUMENTS: ONLINE TECHNICAL BID SUBMISSION

The intending bidders must read the terms & conditions of tender documents carefully. He should only submit bid if he considers himself eligible and he is in possession of all the documents required.

The Technical Bid shall be uploaded **with coloured scanned copies of following documents. All the documents must be Serial wise as stated below along with check list and clearly marked page no. on each page (MANDATORY). Any Bid not in order with page number shall be rejected.**

Format of Check List				
S.N	Particular of Document	Yes	No	Page Nos. (from – to)
a)	Authorization Letter to sign the Tender on bidder's original letter head or Power of attorney			
b)	Scanned copy of EMD as mentioned in NIT and Scanned copy of Demand Draft for Tender Fees of the amount as mentioned in NIT.			
c)	Letter of Transmittal on bidder's original letter Head to submit Technical Bid.			
d)	Yearly sales Turnover and Audited Balance Sheet for Last 5 (five) years ending on the financial year 2023-24			
	• The contractor should not have incurred any loss (profit after tax should be positive) in more than two years during last five years ending 2023-24 duly audited and <u>Attested by the Independent Chartered Accountant. (Form-A)</u>			
	• Turnover: Average annual financial turnover on Construction works should be at least 50% of the estimated cost of work during the immediate last 3 consecutive financial years ending 2023-24. This should be duly audited by the Chartered Accountant doing Statutory Audit.			
	• Full Balance Sheet and Profit & loss Statement for last 5 years of Bidder should be verified by Chartered Accountant.			
	• Turnover, profit, net worth certificates must be certified by the statutory auditor of the firm/company. Any such certificate must carry the UDIN (Unique Document Identification Number)			

Format of Check List				
S.N	Particular of Document	Yes	No	Page Nos. (from – to)
e)	The contractor should also have satisfactorily completed the similar types of works as mentioned below during last seven years ending previous day of last date of submission of tender. (Form I)			
	i) One similar completed work costing not less than 80% of the estimated cost of work. Or ii) Two similar completed works of order value each not less than 50% of the estimated cost of work. Or iii) Three similar completed works of order value not less than 40% of the estimated cost of work. Note: “Similar work” “Similar work” refers to construction residential or non-residential buildings with Park development works or Landscaping or Horticulture works. The bidder's shall submit Completion Certificate(s) mentioning name, nature of work(s), value(s) of the job(s), date(s) of commencement, stipulated date(s) of completion and actual date(s) of completion along- with LOI(s)/W.O(s) from respective Owner(s)/Clients(s). (Form I)			
f)	The bidder should not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended. Accordingly, Bidder shall submit Solvency certificate with details of Financial Status i.e. Name of the Banker & Current Solvency from Banker for a sum of at least 40% of the estimated cost of work Certificate in Original. (Form H) <u>IMPORTANT NOTE :</u> The Solvency Certificate shall be issued by the Nationalized/ Scheduled Commercial bank & must have been issued after the date of publication of NIT & be addressed to the tendering authority quoting the name of the work			

Format of Check List				
S.N	Particular of Document	Yes	No	Page Nos. (from – to)
g)	Name, Address, details of the Organization, Name(s) of the Owner/Partners/Promoters and Directors of the firm / company. (Form-B)			
h)	Copy of P.F and PAN Number.			
i)	Goods and Service Tax (GST): Bidders are advised to get themselves registered for GST, which are mandatory, as per Govt. of India notification regarding GST. Accordingly, bidder shall submit relevant documents if already registered. If not registered till date of submission of bid, bidder will give undertaking on bidder letter head stating that they will get registered in GST as per Govt. norms before submission of bills.			
j)	The bidder should be an Indian Registered Company under Companies Act 1956/Proprietorship Firm/ Partnership Firm. Copy of Certificate of Incorporation/ Registration/ Partnership Deed Registration or any other relevant document, as applicable, should be submitted along with a copy of address proof. NOTE: Proprietor firms shall submit registration details or shall submit the copy of relevant page of Pass book for the Current Account in the name of Proprietor Firm.			
k)	Bidder should not be blacklisted/ debarred by any Government/ semi-Government Department/ PSU. Bidders shall give undertaking for not being involved in any form of corrupt and fraudulent practices. (Form-C & Form K).			
l)	Letter of understanding the project site on bidder letter Head (Form-D).			
m)	'No Deviation Certificate' in prescribed format in Bidder's Letter Head (Form-E).			
n)	Consent Letter to execute the Integrity Pact (Form-F).			
o)	Bidder shall submit Information on litigation history, liquidated damages, disqualification etc. in bidder Letter Head (Form-G).			
p)	Bidder has to submit Bar chart showing the timelines to complete the project in stipulated time period			
q)	Each page of the all Volume of Tender document			

Format of Check List				
S.N	Particular of Document	Yes	No	Page Nos. (from – to)
	& Addendum/ Corrigendum shall be Digitally signed by the bidders submitting the Tender in token of his/their having acquainted himself/ themselves and accepted the entire tender documents including various conditions of contract. Any Bid with any of the Documents not so signed is liable to be rejected at the discretion of WAPCOS Limited. (Do Not Submit with the document of Offline Submission)			

4.0 OFFLINE SUBMISSIONS OF DOCUMENTS

The Bidder shall submit following Document offline in addition to online submission of tender at the office of Chief Scientist -II, Ropeways Division, WAPCOS Limited., 2nd Floor, Plot No.- 62, Institutional Area Sector – 18, Gurugram-122015, Haryana - 122015.

- a) Mobile no.: 0124 2977225
- b) Email: ropeways@wapcos.co.in

1. **All the documents in ORIGINAL, mentioned in “Section-II: Mandatory Documents” in Para 3: Qualifying Criteria for Technical Bid i.e. at Sr. No. (a) to (q) along with checklist & page numbering (MANDATORY) in separate sealed envelope clearly labeled as “TECHNICAL BID” for the Work (Write Name of Work/Project as mentioned in NIT) along with Details of Bidders Address, Phone, E-mail on Envelope.**
2. **Originals EMD and Tender submission fee in the form of Demand Draft in separate sealed envelope clearly labeled as “EMD AND TENDER FEE” for the work (Write Name of Work/Project as mentioned in NIT) along with Details of Bidders Address, Phone, E-mail on Envelope.**

NOTE: All above two envelopes shall be submitted in one single envelope clearly labeled as “Documents for Offline Submission” for the Work (Write Name of Work/Project as mentioned in NIT) along with Details of Bidders Address, Phone, E-mail on Envelope.

IMPORTANT NOTE: - The offline submissions as mentioned above shall be submitted on WAPCOS address mentioned in NIT as per date & time mentioned in NIT otherwise bids will be rejected.

5.0 CONTENTS OF FINANCIAL BID

The Financial Bid should be uploaded separately along with Technical bid before last date & time of submission of Tender Document.

The quoted cost filled in Summary of Cost, by bidders, should include all associated costs with the project including any out of pocket / mobilization expenses/

Custom duty (if any) , Buildings and other construction workers welfare cess, TDS, taxes (except GST) if any applicable as per Govt. terms, shall be paid by the Contractor. The Goods and Services Tax (GST) shall be paid extra over quoted cost.

It is mandatory to bidders to deposit GST within time limit framed by Govt. of India, if applicable. The Goods and Services Tax (GST), shall be reimbursed to the Agency only after uploading of bills by Contractor on GST Portal “to avail Input benefit of GST”.

The company shall be performing all its duties of deduction of TDS and other deduction on payment made to the contractor as per applicable legislation in force on the date of submission of bid or to be newly / amended introduced during the execution of the Contract.

The tenderer shall quote cost up to zero decimal and as well as in words. In case of any discrepancy cost quoted in words shall prevail.

The Financial Bid of tender is attached in Microsoft Excel format, bidder shall fill his offer only in soft format. The bidder will upload same filled soft Microsoft Excel copy during uploading of financial bid.

6.0 OPENING OF FINANCIAL BID

The financial bids of the qualified bidders shall be opened at the notified date & time mentioned in NIT. Final selection of the bidder will be made based on the least cost method.

For & on behalf of Tenderer

SECTION – III

GENERAL CONDITIONS OF CONTRACT

SECTION - III: GENERAL CONDITIONS OF CONTRACT

1.0 GENERAL RULES AND DIRECTIONS

General Rules & Directions	1.	The work proposed for execution by contract will be notified in a form of invitation to tender by publication in Newspapers and / or posted on website as the case may be. This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
	2.	In the event of the tender being submitted by a Partnership firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a Power of Attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
	3.	Receipts for payment made on account of work, when executed by a Partnership firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm
	4	The financial offer must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one. In case the lowest tendered amount of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised online offer (through limited tender process) but the revised quoted offer of should not be higher than their respective original offer quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.
		If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots and the lowest contractors those have quoted

		equal amount of their tenders. In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD or action as per provisions of the Bid Security Declaration of each lowest contractors. Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised offer than their respective original offer quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work.
	4A	In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities, he will be willing to execute the work. The tender submitted shall be treated as invalid if :- 1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender. 2. The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender. 3. The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected.
	4B	In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit revised online offer (through limited tender process) in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender

		before acceptance and 50% of earnest money shall be forfeited or action as per provisions of the Bid Security Declaration shall be taken. If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence WAPCOS & the lowest contractors those have quoted equal amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD or action as per provisions of the Bid Security Declaration of each contractor, whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
	5.	The designated committee will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money/Bid Security Declaration shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents. In the event of a tender being rejected, the earnest money shall thereupon be returned to the contractor remitting the same, without any interest, if applicable.
	6.	WAPCOS shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
	7.	The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgment or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.
	8.	In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally, but the amount is

		not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly. However, if a tenderer quotes nil rates against each item in item rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer and earnest money deposited shall be forfeited or action as per provisions of the Bid Security Declaration of each contractor. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.
	9.	In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.
	10.	In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15P' and in case of words, the word 'Rupees' should precede and the word 'Paisa' should be written at the end.
	11.	i. The Contractor, whose tender is accepted, will be required to furnish performance guarantee of 3% (Three Percent) of the tendered amount within the period specified in Special Conditions of Contract. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds or Bank Guarantee of any Scheduled Bank or Nationalized Bank in accordance with the prescribed form (in case guarantee amount is more than or equal to Rs. 1,00,000/-).

		ii. The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 2.5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted or Bank Guarantee of scheduled bank/ Nationalized bank towards guarantee for this purpose provided confirmatory advice is enclosed.
	12.	On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
	13.	Any other tax except GST applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and WAPCOS will not entertain any claim whatsoever in respect of the same.
	14.	The contractor shall give a list of WAPCOS employees related to him.
	15.	The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them.
	16.	The tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
	17.	The tender for composite work includes, in addition to building work, all other works such as sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.

2.0 CONDITIONS OF CONTRACT

Definitions	1.	The Contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the WAPCOS and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-In-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
	2.	In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them: - “Employer” shall mean “WAPCOS Limited”, A Government of India undertaking- Ministry of Jal Shakti, for execution of the Work / Project as mentioned in NIT. i. having their Registered office at 5th floor, Kailash building, 26-Kasturba Gandhi Marg, New Delhi-110001, India & include their successors & permitted assigns as well as their authorized officer / representatives ii. The “WAPCOS Limited” shall mean WAPCOS Limited. iii. The expression works or Project shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional. iv. The Site shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract. v. The Bidder /Contractor shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company who are participating in Bidding process and will Execution the project after award of the works as Contractor. vi. The Engineer-in-Charge means the Engineer/Officer appointed by WAPCOS or his duly authorized representative who shall direct, supervise and be incharge of the work for the purpose of this Contract. vii. Accepting Authority shall mean the authority mentioned in Special Conditions of Contract. viii. Tenderer / Bidder shall mean the firm/party who intends to participate in this Notice Inviting Tender ix. Excepted Risk are risks due to riots (other than those on account of contractor’s employees), war (whether declared or

		not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works. x. Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Special Conditions of Contract to cover, all overheads and profits, Provided that no extra overheads and profits shall be payable on the part(s) of work assigned to other agency(s) by the contractor as per terms of contract. xi. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Special Conditions of Contract hereunder, with the amendments thereto issued upto the date of receipt of the tender. xii. District Specifications means the specifications followed by the State Government in the area where the work is to be executed. xiii. The Contractor/Successful Bidder shall mean the firm or company whose bid has been accepted by WAPCOS. xiv. Consultant shall mean any consultant nominated by the WAPCOS xv. Tendered value means the value of the entire work as stipulated in the letter of award or the date of handing over of the site, whichever is later; xvi. Date of commencement of work: The date of commencement of work shall be the date of work order xvii. GST shall mean Goods and Service Tax - Central, State and Inter State.
Scope and Performance	3.	Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
	4.	Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
	5.	The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out	6.	The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities/ Building Components shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.
Sufficiency of Tender	7.	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the cost quoted in the Schedule of Quantities/ Building Components, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.
Discrepancies and Adjustment of Errors	8.	The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.
	8.1	In the case of discrepancy between the schedule of Quantities/Building Components, the Specifications and/ or the Drawings, the following order of preference shall be observed:- i. Description of Schedule of Quantities/ Building Components/Drawings. ii. Particular Specification and Special Condition, if any. iii. Standard Specifications iv. Drawings. v. Indian Standard Specifications of B.I.S.
	8.2	If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
	8.3	Any error in description, quantity or rate in Schedule of Quantities or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.
Signing of Contract	9.	The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- i. The notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

		ii. Special Conditions of Contract consisting of: a) Various standard clauses with corrections up to the date stipulated in Special Conditions of Contract along with annexures thereto. b) Safety Code. c) Model Rules for the protection of health, sanitary arrangements for workers employed WAPCOS or its contractors. d) Contractor's Labour Regulations. e) List of Acts and omissions for which fines can be imposed. iii. No payment for the work done will be made unless contract is signed by the contractor.
--	--	---

3.0 CLAUSES OF CONTRACT

CLAUSE 1: PERFORMANCE GUARANTEE

- i. The contractor shall submit an irrevocable **Performance Guarantee of 5% (five percent) of the tendered amount** in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Special Conditions of Contract from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period as specified in Special Conditions of Contract on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of Cash (in case guarantee amount is less than Rs. 10,000/-) or Banker's Cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay Order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Fixed Deposit Receipts or Insurance Surety Bonds or Guarantee Bonds or Bank Guarantee of any Scheduled Bank or Nationalized Bank in accordance with the form annexed hereto (in case guarantee amount is more than Rs. 1,00,000/-). In case a fixed deposit receipt of any Bank is furnished by the contractor to the WAPCOS as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the WAPCOS to make good the deficit.
- ii. **The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 1 year claim period beyond that.** In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.
- iii. The Engineer-in-Charge shall make a claim under the performance guarantee except for amounts to which the WAPCOS is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.
 - (b) Failure by the contractor to pay WAPCOS any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer in-Charge.
- iv. In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the WAPCOS.

- v. On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion certificate shall be recorded by the Engineer-in-Charge. The provisional certificate shall have appended with a list of outstanding balance item of work that need to be completed in accordance with the provisions of the contract.

This provisional completion certificate shall be recorded by the concerned Engineer in- charge with the approval of competent authority, if required. After recording of the provisional Completion Certificate for the work by the competent authority, the 80 % of retention money shall be returned to the contractor, without any interest.

CLAUSE 1A: RECOVERY OF SECURITY DEPOSIT/ RETENSION MONEY

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit WAPCOS at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 2.5% of the gross amount of each running and final bill till the sum deducted will amount to Security Deposit/retention money of 2.5% of the tendered value of the work. Such deductions will be made and held by WAPCOS by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Government Securities or fixed deposit receipts or Bank Guarantee of scheduled bank or nationalized bank. In case a fixed deposit receipt of any Bank is furnished by the contractor to the WAPCOS as part of the security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the WAPCOS to make good the deficit.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due to or may become due to the contractor by WAPCOS on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Banks endorsed in favour of WAPCOS LIMITED, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills and the final bill of the contractor at the rates mentioned above.

The security deposit as deducted above can be released against bank guarantee issued by a scheduled bank, on its accumulations to a minimum of Rs. 5 lac subject to the condition that amount of such bank guarantee, except last one, shall not be less than Rs. 5 lac. Provided further that the validity of bank guarantee including the one given against the earnest money shall be in conformity with provisions contained in **Clause 17** which shall be extended from time to time depending upon extension of contract granted under provisions of **Clause 2** and **Clause 5**.

CLAUSE 2: COMPENSATION FOR DELAY

If the contractor fails to maintain the required progress as per milestone in terms of **Clause 5** or to complete the work and clear the site on or before the contract or justified extended date of completion as per **Clause 5** (excluding any extension under **Clause 5.5**) as well as any extension granted under **Clauses 12 and 15**, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay

as compensation the amount calculated at the rates stipulated below as the authority specified in Special Conditions of Contract may decide on the amount of accepted Tendered Value of the work for every completed day/month (as determined) that the progress remains below that specified in **Clause 5** or that the work remains incomplete.

- | | |
|-----------------------------------|--|
| i. Compensation for delay of work | With maximum rate @ 1% (one percent) per month of delay to be computed on per day basis based on quantum of damage suffered due to stated delay on the part of Contractor. |
|-----------------------------------|--|

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the item or group of items of work for which a separate period of completion is originally given.

In case no compensation has been decided by WAPCOS during the progress of work, this shall be no waiver of right to levy compensation by the said authority if the work remains incomplete on final justified extended date of completion. If the Engineer in Charge decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period. If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under **Clause 12**, the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under sub **Clause 5.2**, the contractor shall be liable to pay compensation for such delay.

Provided that compensation during the progress of work before the justified extended date of completion for delay under this clause shall be for non-achievement of sectional completion or part handing over of work on stipulated/justified extended date for such part work or if delay affects any other works/services. This is without prejudice to right of action by the Engineer in Charge under **Clause 3** for delay in performance and claim of compensation under that clause.

In case action under **Clause 2** has not been finalized and the work has been determined under **Clause 3**, the right of action under this clause shall remain post determination of contract but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the WAPCOS, after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after of determination of contract.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with WAPCOS or CCL, Ranchi. In case, the contractor does not achieve a particular milestone mentioned in Special Conditions of Contract, or the re-scheduled milestone(s) in terms of **Clause 5.4**, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. Withholding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent

milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

CLAUSE 3: WHEN CONTRACT CAN BE DETERMINED

Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i. If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii. If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- iii. If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date, on or before such date of completion; and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer-in-Charge the contractor will be unable to complete the same or does not complete the same within the period specified.
- iv. If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- v. If the contractor shall offer or give or agree to give to any person in WAPCOS service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for WAPCOS.
- vi. If the contractor shall enter into a contract with WAPCOS in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.
- vii. If the contractor had secured the contract with WAPCOS as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.
- viii. If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act

for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.

- ix. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- x. If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- xi. If the contractor assigns (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the WAPCOS shall have powers:

(a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, Security Deposit already recovered, Security deposit payable and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government.

(b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work including any new items needed to complete the work. In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A:

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract. In case contractor wants to close the contract, he shall give notice to the WAPCOS stating the failure on the part of WAPCOS. In such eventuality, the Performance Guarantee of the contractor shall be refunded within following time limits:

- | | | |
|----|--|---------|
| a) | Tendered value of work is up to Rs. 1.0 Crore | 15 days |
| b) | If the Tendered value of work is more than Rs.1.0 crore and up to Rs. 10 Crore | 21 days |

c) If the Tendered value of work exceeds Rs. 10 Crore:

30 days

Neither party shall claim any compensation for such eventuality. This clause is not applicable for any breach of the contract by either party

CLAUSE 4: CONTRACTOR LIABLE TO PAY COMPENSATION EVEN IF ACTION NOT TAKEN UNDER CLAUSE 3

In any case in which any of the powers conferred upon the Engineer-in-Charge by **Clause-3** thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

CLAUSE 5: TIME AND EXTENSION FOR DELAY

The time allowed for execution of the Works as specified in the Special Conditions of Contract or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in Special Conditions of Contract or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, WAPCOS shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the performance guarantee absolutely.

5.1 As soon as possible but within 7 (seven) working days of award of work and in consideration of:

(a) Schedule of handing over of site as specified in the Special Conditions of Contract

(b) Schedule of issue of designs as specified in the Special Conditions of Contract

- (i) the Contractor shall submit a Time and Progress Chart for each mile stone. The Engineer-in-Charge may within 7 (seven) working days thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The work programme shall include all details of balance drawings and decisions required to complete the contract with specific dates by which these details

are required by contractor without causing any delay in execution of the work. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer in- Charge and the Contractor within the limitations of time imposed in the Contract documents.

- (ii) In case of non-submission of construction programme by the contractor, the program approved by the Engineer-in-Charge shall be deemed to be final.
- (iii) The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.
- (iv) The contractor shall submit the Time and Progress Chart and progress report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous month to the Engineer-in-charge on or before 5th day of each month failing which a recovery as per Schedule F to be decided by the NIT approving authority shall be made on per week or part basis in case of delay in submission of the monthly progress report.

5.2 If the work(s) be delayed by :-

- (i) force majeure, or
- (ii) abnormally bad weather, or
- (iii) serious loss or damage by fire, or
- (iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- (v) delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
- (vi) any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the authority as indicated in Special Conditions of Contract but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in **sub clause 5.2**.

- 5.3 In case the work is hindered by the WAPCOS or for any reason / event, for which the WAPCOS is responsible, the authority as indicated in Special Condition of Contract shall, if justified, give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law; provided further that for concurrent delays under this sub clause and **sub clause 5.2** to the extent the delay is covered under **sub clause 5.2** the contractor shall be entitled to only extension of time and no damages.

- 5.4 Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within 14 (fourteen days) of

the happening of the event causing delay on the prescribed forms i.e. Form of application by the contractor for seeking rescheduling of milestones or Form of application by the contractor for seeking extension of time respectively to the authority as indicated in Special Conditions of Contract. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired. With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme, which shall include all details of pending drawings and decisions required to complete the contract and also the target dates by which these details should be available without causing any delay in execution of the work. A recovery as specified in Special Conditions of Contract shall be made on per day basis in case of delay in submission of the revised programme.

In any such case the authority as indicated in Special Conditions of Contract may give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Special Conditions of Contract in writing, within 3 months or 4 weeks of the date of receipt of such request respectively. Non application by the contractor for extension of time/ rescheduling of the milestones shall not be a bar for giving a fair and reasonable extension/ rescheduling of the milestones by the authority as indicated in Special Conditions of Contract and this shall be binding on the contractor.

- 5.5** In case the work is delayed by any reasons, in the opinion of the Engineer-in-Charge, by the contractor for reasons beyond the events mentioned in **Clause 5.2** or **Clause 5.3** or **Clause 5.4** and beyond the justified extended date; without prejudice to right to take action under **Clause 3**, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.

CLAUSE 6 : MEASUREMENTS OF WORK DONE

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.

All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Measurement Book having pages of A-4 size as per the format of the WAPCOS so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter,

incorporate such changes as may be done during these checks/test checks in his draft measurements, and submit to the WAPCOS a measurement book, duly bound, and with its pages machine numbered. The Engineer-in- Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the WAPCOS. This should be done before the corresponding bill is submitted to the WAPCOS Nodal Office for payment. The contractor shall submit two spare copies of such MB's for the purpose of reference and record by the various officers of the WAPCOS.

The contractor shall also submit to the WAPCOS separately his Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the "bill. Thereafter, this bill will be processed by the Office-in-charge and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give, not less than 7 (seven) days' notice to the Engineer-in-Charge or his authorized representative in charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of 7 (seven) days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the WAPCOS to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it

relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 7 : PAYMENT ON INTERMEDIATE CERTIFICATE TO BE REGARD AS ADVANCE

No payment shall be made for work, estimated to cost Rs. Twenty thousand or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. Twenty thousand, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the WAPCOS in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Special Conditions of Contract, in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in- Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to the Engineer-in-Charge together with the account of the material issued by the WAPCOS, or dismantled materials, if any. In the case of works outside the headquarters of the Engineer- in-Charge, the period of ten working days will be extended to fifteen working days.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the WAPCOS to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Engineer-In-Charge to the effect that the work has been completed up to the level in question make interim advance payments without detailed measurements for work done (other than foundations, items to be covered under finishing items) up to lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill by taking detailed measurements thereof.

In case of composite tenders, running payment for the major component shall be made by Engineer-In-Charge of major discipline to the main contractor. Running payment for minor component shall be made by the Engineer-in-Charge of the discipline of minor component directly to the main contractor.

In case main contractor fails to make the payment to the contractor associated by him within 15 days of receipt of each running account payment, then on the written complaint of contractor associated for such minor component, Engineer in charge of minor component shall serve the show cause to the main contractor and if reply of main contractor either not received or found unsatisfactory, he may make the payment directly to the contractor associated for minor component as per the terms and conditions of the agreement drawn between main contractor and associate contractor fixed by him. Such payment made to the associate contractor shall be recovered by Engineer-in-charge of major or minor component from the next R/A/ final bill due to main contractor as the case may be.

CLAUSE 7A :

No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.

CLAUSE 8 : COMPLETION CERTIFICATE AND COMPLETION PLANS

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

CLAUSE 8A : COMPLETION PLANS TO BE SUBMITTED BY THE CONTRACTOR

The contractor shall submit completion plans for Internal and External Civil, Electrical and Mechanical Services within thirty days of the completion of the work, provided that the service plans having been issued for execution by the Engineer-in-Charge, unless the contractor, by virtue of any other provision in the contract, is required to prepare such plans.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum of 0.1 % (zero point one percent) of accepted Tendered Value or limit prescribed

in Special Condition of Contract whichever is more as may be fixed by the authority as mentioned in Special Condition of Contract and in this respect the decision of the that authority shall be final and binding on the contractor.

CLAUSE 9 : PAYMENT OF FINAL BILL

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period specified herein under, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Engineer, complete with account of materials issued by the WAPCOS and dismantled materials.

- | | |
|--|----------|
| a) Tendered value of work is up to Rs. 1.0 Crore | 2 months |
| b) If the Tendered value of work is more than Rs. 1.0 Crore and up to Rs. 10.0 Crore | 3 months |
| c) If the Tendered value of work exceeds Rs. 10.0 Crore : | 6 months |

CLAUSE 9A : PAYMENT OF CONTRACTOR'S BILLS TO BANKS

Payments due to the contractor may, if so desired by him, be made to his bank, registered financial, co-operative or thrift societies or recognized financial institutions instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge (1) an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank; registered financial, co-operative or thrift societies or recognized financial institutions to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by WAPCOS or his signature on the bill or other claim preferred against WAPCOS before settlement by the Engineer-in-Charge of the account or claim by payment to the bank, registered financial, co-operative or thrift societies or recognized financial institutions. While the receipt given by such banks; registered financial, co-operative or thrift societies or recognized financial institutions shall constitute a full and sufficient discharge for the payment, the contractor shall whenever possible present his bills duly receipted and discharged through his bank, registered financial, co-operative or thrift societies or recognized financial institutions.

Nothing herein contained shall operate to create in favour of the bank; registered financial, co-operative or thrift societies or recognized financial institutions any rights or equities vis-à-vis the WAPCOS.

CLAUSE 10 : MATERIALS SUPPLIED BY WAPCOS

Materials which WAPCOS will supply are shown in Special Conditions of Contract (SCC) which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of

various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) material wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the CPWA Code) all stores/materials so supplied to the contractor or procured with the assistance of the WAPCOS shall remain the absolute property of WAPCOS and the contractor shall be the trustee of the stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/materials remaining unused shall be returned to the Engineer-in-Charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/materials the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licenses or permit and/or for criminal breach of trust, be liable to WAPCOS for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the WAPCOS within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10A: MATERIALS TO BE PROVIDED BY CONTRACTOR

The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the WAPCOS

The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in Special Conditions of Contract.

Minimum 01 year warranty for Mechanical & Electrical Equipment and other bought out items, at the discretion of WAPCOS Limited, if supplied directly by the contractor. The standard warranty period offered by the Manufacturer shall be retained, in case the original warranty period is more than one year.

CLAUSE 10B :

(i) SECURED ADVANCE ON NON-PERISHABLE MATERIALS

The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials which are in the opinion of the Engineer-in-Charge non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/ deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-Charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-Charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

(ii) MOBILISATION ADVANCE

Mobilization advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in two or more installments to be determined by the Engineer-in-Charge at his sole discretion. The first installment of such advance shall be released by the Engineer-in-charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent installments shall be released by the Engineer-in-Charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier installment to the entire satisfaction of the Engineer-in-Charge.

Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the contract period. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.

(iii) INTEREST & RECOVERY

The mobilization advance in (ii) above bear simple interest at the rate of 10 percent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums

advanced shall be made by the deduction from the contractors bills commencing after first ten percent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time 80% (eighty percent) of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment.

If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance may be extended at the discretion of the Engineer-in-Charge.

CLAUSE 10C : PAYMENT ON ACCOUNT OF INCREASE IN PRICE / WAGES DUE TO STATUTORY ORDER

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour increases as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty/ Royalty) beyond the prices/wages prevailing at the time of the last stipulated date of receipt of tenders including extensions, if any, for the work during contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, then the amount of the contract shall accordingly be varied.

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rules or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty/ Royalty), WAPCOS shall in respect of materials incorporated in the works (excluding the materials covered under Clause 10CA and not being material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2.

Engineer-in-Charge may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials and/or wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

CLAUSE 10CA : PAYMENT DUE TO VARIATION IN PRICES OF MATERIALS AFTER RECEIPT OF TENDER

If after submission of the tender, the price of materials specified in Special Conditions of Contract increases/ decreases beyond the base price(s) as indicated in Special Conditions of Contract for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of Contract including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2.

However for work done/during the period when the contract is under penalty, it will be limited to indices prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on pro-rata basis only as cost of extra work x stipulated period/tendered cost).

The increase/decrease in prices of cement, steel reinforcement, structural steel and POL shall be determined with reference to the star rates prescribed in the contract. For other items provided in the Special Conditions of Contract, this shall be determined by the All-India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry.

The amount of the contract shall accordingly be varied for all such materials and will be worked out as per the formula given Clause 10CA of General Conditions of Contract.

**CLAUSE 10CC : PAYMENT DUE TO INCREASE/DECREASE IN PRICES/WAGES
(EXCLUDING MATERIALS COVERED UNDER CLAUSE 10 CA) AFTER
RECEIPT OF TENDER FOR WORKS**

If the prices of materials and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:

- (i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.
- (ii) The cost of work on which escalation will be payable shall be reckoned as below :
 - (a) Gross value of work done up to this quarter : **(A)**
 - (b) Gross value of work done up to the last quarter : **(B)**
 - (c) Gross value of work done since previous quarter **(C)= (A-B)**
 - (d) Full assessed value of Secured Advance fresh paid in this quarter : **(D)**
 - (e) Full assessed value of Secured Advance recovered in this quarter : **(E)**
 - (f) Full assessed value of Secured Advance for which escalation Payable in this quarter, **(F)= (D-E)**
 - (g) Advance payment made during this quarter: **(G)**
 - (h) Advance payment recovered during this quarter: **(H)**
 - (i) Advance payment for which escalation is payable in this Quarter **(I)= (G-H)**
 - (j) Amount paid based on prevailing market rates due to deviations/variations as per clause 12 during this quarter:**(J)**

Then, **$M = C+F+I-J$**

Cost of work for which escalation is applicable(**W**)= **$0.85M$**

Components for materials, labour, etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender documents included in Schedule 'F'. The decision of the Engineer-in-Charge in working out such percentage shall be binding on the contractors.

- (iii) The following principles shall be followed while working out the payment/recovery on account of variation of prices of materials and/ or wages of labour.
 - (a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The date of submission of bill by the contractor to the department shall be the guiding factor to decide the bills relevant to the quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which the letter of commencement of work is issued by the Engineer-in-Charge) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.
 - (b) The indices as defined below (excluding LI) relevant to any quarter/period for which such compensation is to be paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to the date of completion after the quarter covered by the last such installment of payment, is less than three months, the indices shall be the average of the indices for the months falling within that period.
 - (c) The minimum wage of an unskilled Mazdoor shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.
 - (d) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;
 - (e) Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled Mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.
- (iv) In the event the price of materials and/or wages of labour required for execution of the work decreases, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein stated below under this Clause 10CC shall mutatis mutandis apply.

- (v) The contract price shall be adjusted for increase or decrease in rates and prices of labour, cement, steel reinforcement bar, fuel and lubricants and other input materials as per percentage of materials/labour specified in schedule F and in accordance with the principles, procedures and formulae specified below:

- a. Price adjustment for change in cost shall be paid in accordance with the following formulae:

- i. For Construction:

$$V_W = W \cdot (1/100) \cdot [C_P \cdot (C_I - C_O)/C_O + L_P \cdot (L_I - L_O)/L_O + C_{MP} \cdot (C_{MI} - C_{MO})/C_{MO} + F_P \cdot (F_I - F_O)/F_O + S_P \cdot (S_I - S_O)/S_O]$$

Where, W=cost of work done as per para (ii) above.

V_W (Variation of cost of Work) = Increase or decrease in the cost of works during the period under consideration due to change in the rates for relevant components.

Percentage components of materials & labour as specified in the Special Condition of Contract (SCC) are defined as under:-

C_P - Cement component,

L_P - Labour component,

C_{MP} - Civil component of other construction materials,

F_P -POL (Diesel) component

S_P - Reinforcement steel bars/TMT bars/structural steel (including strands and cables) component

Indices for various components of materials & labour to be used for the purpose of this Clause are defined as under:

C_O = Wholesale Price Index for Cement published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any.

C_I = Wholesale Price Index for Cement published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.

L_O = Minimum daily wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as on the last date of receipt of tender including extension, if any.

L_I = Minimum wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration.

C_{MO} = Price Index for civil components of other construction materials valid for the month of the last date of receipt of tender including extension, if any, as issued by the office of CE CSQ (Civil) or successor.

CM_I= Price Index for civil components of other construction materials for the period under consideration and as issued by the office of CE CSQ (Civil) or successor.

F_O= Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any.

F_I= Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.

S_O= Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any

S_I= Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.

CLAUSE 10D : DISMANTLED MATERIAL WAPCOS PROPERTY

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as WAPCOS' property and such materials shall be disposed off to the best advantage of WAPCOS according to the instructions in writing issued by the Engineer-in-Charge.

CLAUSE 11 : WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, ORDERS etc.

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications specified in Special Conditions of Contract or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

At least to 10% of prescribed Tests **as per standard specifications by the** Central Public Works Department Manual/IS Codes of construction materials shall be carried out from the outside approved/NABL recognized Laboratory as may be approved by WAPCOS without any extra expenditure to WAPCOS.

The Contractor shall establish a field test laboratory on the site with latest equipment's for carrying out field tests of construction materials and will maintain proper records of all the test results.

CLAUSE 12 : DEVIATIONS / VARIATIONS EXTENT AND PRICING

The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided. The completion cost of any agreement for Maintenance works including works of up gradation, aesthetic, special repair, addition/ alteration should not exceed 1.25 times of Tendered amount. Any further deviation beyond this limit up-to 1.5 times of tendered amount shall be approved by the authority with recorded reason and in exceptional case, competent authority shall have full power to approve the deviation beyond 1.50 times of tendered amount with recorded reason and take suitable corrective action.

12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:

- (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
- (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

12.2 (a) Deviations, Extra Items and Pricing

In the case of extra item(s) (items which are not available in the contract), the contractor may within fifteen days of the receipt of order or occurrence of the item(s), submit claim for market rate(s), supported with proper analysis of rate and manufacturer's specification for the work, invoices, vouchers, etc. (as applicable), failing which the rate(s) approved later by the Engineer-in-Charge shall be final and binding. Where the contractor submits claim for market rate(s) in the manner prescribed above, the Engineer-in-Charge shall, within 45 days of the receipt of the claims, after giving consideration to the analysis of rates and other documents submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

The rate(s) of extra items so determined by the Engineer-in-Charge shall be final and binding on the contractor, and shall not be arbitrable.

12.2 (b) Deviations, Substituted Items and Pricing.

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para.

- (a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

- (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

12.2 (c) Deviations, Deviated Quantities, Pricing

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in Special Conditions of Contract, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within prescribed time limit of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

The rate(s) of extra items so determined by the Engineer-in-Charge shall be final and binding on the contractor, and shall not be arbitrable.

- | | | |
|----|---|---------|
| a) | Tendered value of work is up to Rs. 45 lac | 30 days |
| b) | If the Tendered value of work is more than Rs. 45 lac and up to Rs. 2.5 Crore | 45 days |
| c) | If the Tendered value of work exceeds Rs. 2.5 Crore : | 60 days |

12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Special Conditions of Contract, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

12.4 The cost of any operation necessarily in contemplation of tenderer while quoting tender or necessary or incidental to proper execution of an item of work included in the Schedule of Quantities or in the Schedule of Rates mentioned, whether or not specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said Schedule of Rates, as the case may be. Nothing extra shall be admissible for such operations.

12.5 The contractor shall send to the Engineer-in-Charge once every three months, an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right.

12.6 For the purpose of operation of Special Conditions of Contract, the following works shall be treated as works relating to foundation unless & otherwise defined in the contract:

- (i) For Buildings: All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.

- (ii) For abutments, piers and well staining: All works up to 1.2 m above the bed level.
- (iii) For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs/tanks and other elevated structures: All works up to 1.2 metres above the ground level.
- (iv) For reservoirs/tanks (other than overhead reservoirs/tanks): All works up to 1.2 metres above the ground level.
- (v) For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.
- (vi) For Roads, all items of excavation and filling including treatment of sub base.

12.7 Any operation incidental to or necessarily has to be in contemplation of tenderer while filing. tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13 FORECLOSURE OF CONTRACT DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

If at any time after acceptance of the tender, Engineer-in-charge shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates, full amount for works executed at site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure;

- (i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.
- (ii) WAPCOS shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work). For materials taken over or to be taken over by WAPCOS, cost of such materials as detailed by Engineer-in- Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.
- (iii) If any materials supplied by WAPCOS are rendered surplus, the same except normal wastage shall be returned by the contractor to WAPCOS at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to WAPCOS stores, if so required by WAPCOS, shall be paid.

- (iv) Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.

The contractor shall, if required by the Engineer- in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the WAPCOS as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the WAPCOS from the contractor under the terms of the contract.

A compensation for such eventuality, on account of damages etc. shall be payable @ 0.5% of cost of work remaining incomplete on date of closure i.e. total stipulated cost of the work less the cost of work actually executed under the contract shall be payable.

CLAUSE 14 : CARRYING OUT PART WORK AT RISK & COST OF CONTRACTOR

If contractor:

- (i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or
- (ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or
- (iii) Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge. The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to WAPCOS, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:
 - (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
 - (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by WAPCOS because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be

final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the WAPCOS are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by WAPCOS in completing the part work/part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by WAPCOS as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to WAPCOS in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

CLAUSE 15 : SUSPENSION OF WORK

- (i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:
 - (a) on account of any default on the part of the contractor or;
 - (b) for proper execution of the works or part thereof for reasons other than the default of the contractor; or
 - (c) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

- (ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:
 - (a) the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;
 - (b) If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim

supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days.

- (iii) If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in subpara (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by WAPCOS or where it affects whole of the works, as an abandonment of the works by WAPCOS, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by WAPCOS, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within 30 days of the expiry of the period of 3 months.

CLAUSE 16 : ACTION IN CASE WORK NOT DONE AS PER SPECIFICATIONS

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-In-charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the WAPCOS or any organization engaged by the WAPCOS for Quality Assurance and of the Chief Technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer-in-charge or his authorized subordinates incharge of the work or to the Chief Engineer in charge of Quality Assurance or his subordinate officers or the officers of the organization engaged by the WAPCOS for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of work costing Rs. 10 Lac and below except road work) of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in- Charge in his demand aforesaid, then the contractor

shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the authority specified in Special Conditions of Contract may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

CLAUSE 17 : CONTRACTOR LIABLE FOR DAMAGES, DEFECTS DURING DEFECT LIABILITY PERIOD

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

Provided that in the case of road work, if in the opinion of the Engineer-in-Charge, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

The defects liability period will be five year from the date of completion of development and construction works. During this period the Contractor will get the defects rectified without any cost to WAPCOS. For the item of water proofing roof treatment the Contractor will give guarantee bond for ten years. Similarly for other items, like electrical/mechanical equipment which have guarantee/warranty period beyond one year, wherever applicable as per manufacturer recommendations, will also be given guarantee bond by the Contractor to WAPCOS.

CLAUSE 18 : CONTRACTOR SUPPLY TOOLS & PLANTS ETC.

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), machinery, tools & plants as specified in Special Conditions of Contract. In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the

purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

CLAUSE 18A : RECOVERY OF COMPENSATION PAID TO WORKMEN

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, WAPCOS is obliged to pay compensation to a workman employed by the contractor, in execution of the works, WAPCOS will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the WAPCOS under sub-section (2) of Section 12, of the said Act, WAPCOS shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by WAPCOS to the contractor whether under this contract or otherwise. WAPCOS shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to WAPCOS full security for all costs for which WAPCOS might become liable in consequence of contesting such claim.

CLAUSE 18B : ENSURING PAYMENT AND AMENITIES TO WORKERS, IF CONTRACTOR FAILS

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, WAPCOS is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the C.P.W.D. Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by C.P.W.D. Contractors, WAPCOS will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the WAPCOS under sub-section(2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, WAPCOS shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by WAPCOS to the contractor whether under this contract or otherwise WAPCOS shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the WAPCOS full security for all costs for which WAPCOS might become liable in contesting such claim.

CLAUSE 19 : LABOUR LAWS TO BE COMPLIED BY CONTRACTOR

The contractor shall obtain a valid license under the Contract Labour (R&A) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.

The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work

CLAUSE 19A

No labour below the age of fourteen years shall be employed on the work.

CLAUSE 19B : PAYMENT OF WAGES

- i. The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- ii. The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.
- iii. In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Contractor's Labour Regulations made by WAPCOS from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- iv. (a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
(b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned.
- v. The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the

- Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time.
- vi. The contractor shall indemnify and keep indemnified WAPCOS against payments to be made under and for the observance of the laws aforesaid and the C.P.W.D. Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
 - vii. The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
 - viii. Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
 - ix. The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE 19C

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per C.P.W.D. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs.200/- for each default and in addition, the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19 D

The contractor shall submit by the 4th and 19th of every month, to the Engineer-in-Charge, a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:-

- (1) The number of labourers employed by him on the work,
- (2) Their working hours,
- (3) The wages paid to them,
- (4) The accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
- (5) The number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them.

Failing which the contractor shall be liable to pay to WAPCOS, a sum not exceeding Rs.200/- for each default or materially incorrect statement. The decision of the Engineer-In-Charge shall be final in deducting from any bill due to the contractor; the amount levied as fine and be binding on the contractor.

CLAUSE 19 E

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by the WAPCOS and its contractors.

CLAUSE 19 F

Leave and pay during leave shall be regulated as follows:-

1. Leave :

- (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
- (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage.

2. Pay :

- (i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
- (ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.

3. Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in appendix -I and II, and the same shall be kept at the place of work.

CLAUSE 19 G

In the event of the contractor(s) committing a default or breach of any of the provisions of the WAPCOS, Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and' Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Government a sum not exceeding Rs.200/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.

Should it appear to the Engineer-in-Charge that the contractor(s) is/are not properly observing and complying with the provisions of the C.P.W.D. Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R& A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in

writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

CLAUSE 19 H

The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Engineer-in-Charge.

- (i)
 - (a) The minimum height of each hut at the eaves level shall be 2.10m (7 ft.) and the floor area to be provided will be at the rate of 2.7 sq.m. (30 sq.ft.) for each member of the worker's family staying with the labourer.
 - (b) The contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.
 - (c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.
 - (d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.
- (ii)
 - (a) All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-in-Charge. In case of sun-dried bricks, the walls should be plastered with mud gobi on both sides. The floor may be kutcha but plastered with mud gobi and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.
 - (b) The contractor(s) shall provide each hut with proper ventilation.
 - (c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.
 - (d) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed
- (iii) **Water Supply** - The contractor(s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also at his/ their own cost make arrangements for laying pipe lines for water supply to his/ their labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.
- (iv) The site selected for the camp shall be high ground, removed from jungle.
- (v) **Disposal of Excreta** - The contractor(s) shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such

Committee/authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/authority. The contractor shall provide one sweeper for every eight seats in case of dry system.

- (vi) **Drainage** - The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.
- (vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- (viii) **Sanitation** - The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

CLAUSE 19 I

The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour. AE/JE will display a list of contractors working in the colony/Blocks on the notice board in the colony and also at the service centre, to apprise the residents about the same.

CLAUSE 19J

It shall be the responsibility of the contractor to see that the building under construction is not occupied by any body unauthorizedly during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the WAPCOS whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, WAPCOS, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

CLAUSE 19K : Employment of Skilled / Semi Skilled Workers

The contractor shall, at all stages of work, deploy skilled/semi skilled tradesmen who are qualified and possess certificate in particular trade from Industrial Training Institute/National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer in charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs. 100 per such tradesman per day. Decision of Engineer in Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

Provided always, that the provisions of this clause, shall not be applicable for works with estimated cost put to tender being less than Rs. 5 crores.

Clause 19L: Contribution of EPF and ESI

The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis. The verification of deployment of labour will be done through biometric attendance system or any other suitable method by the Engineer in Charge. The applicable and eligible amount of EPF & ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.

CLAUSE 20 : MINIMUM WAGES ACT TO BE COMPLIED WITH

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.

CLAUSE 21 : WORK NOT TO BE SUBLET. ACTION IN CASE OF INSOLVENCY

The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of WAPCOS in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge on behalf of the WAPCOS shall have power to adopt the course specified in Clause 3 hereof in the interest of WAPCOS and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.

CLAUSE 22

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of WAPCOS without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

CLAUSE 23 : CHANGES IN FIRM'S CONSTITUTION TO BE INTIMATED

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an Proprietor Firm, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

CLAUSE 24 : LIFE CYCLE COST

The contractor shall be responsible for safety, quality and soundness of the buildings including structural elements beyond maintenance period. The contractor shall have obligation to rectify such defects minimum up to 5 (five) years from the date of completion of

work. The defects have to be rectified within a reasonable time not exceeding forty five days after issue of notice by Engineer- in- Charge. If contractor does not take corrective action within 45 days, then action for debarring of the agency shall be taken by the appropriate authority.

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 25 : SETTLEMENT OF DISPUTES & ARBITRATION

Amicable Resolution and Mediation

Save where expressly stated to the contrary in the Contract, any dispute, difference or controversy of whatever nature between the Parties, howsoever arising under, out of or in relation to the Contract including disputes, if any, with regard to any acts, decision or opinion of WAPCOS Limited Representative and so notified in writing by either Party to the other (the "Dispute") shall in the first instance be attempted to be resolved amicably in accordance with the procedure set out in Clause 25.1 [Amicable Resolution and Mediation] below.

Clause 25.1 :

Either Party may require such Dispute to be referred to a person nominated by each Party, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event within [15 (fifteen)] days of such reference to discuss and attempt to amicably resolve the Dispute.

In the event that the Dispute in question is not resolved amicably within 15 (fifteen) days of such meeting between the Parties in accordance with Clause 25.1 [Amicable Resolution and Mediation] either Party may refer the Dispute to arbitration in accordance with Clause 25.2 [Arbitration Procedure].

Clause 25.2 : Arbitration Procedure

Save where expressly stated to the contrary in the Contract, any Dispute shall be finally settled by binding arbitration under the Arbitration and Conciliation Act 1996 by sole arbitrators appointed by CMD, WAPCOS.

Place of Arbitration

The place of arbitration shall be New Delhi.

English Language

The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and awards shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings.

Enforcement of Award

The Parties agree that the decision or award resulting from arbitration shall be final and binding upon the Parties and shall be enforceable in accordance with the provisions of the Arbitration and Conciliation Act.

Performance during Arbitration

Pending the submission of and/or decision on a Dispute and until the arbitral award is published, the Parties shall continue to perform their respective obligations under the Contract without prejudice to a final adjustment in accordance with such award.

CLAUSE 26 : CONTRACTOR INDEMNIFY WAPCOS AGAINST PATENT RIGHTS

The contractor shall fully indemnify and keep indemnified the WAPCOS against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against WAPCOS in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the WAPCOS if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

CLAUSE 27 : LUMP SUM PROVISIONS IN TENDER

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

CLAUSE 28 : ACTION WHERE NO SPECIFICATIONS ARE SPECIFIED

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

CLAUSE 29 : WITHHOLDING AND LIEN IN RESPECT OF SUM DUE FROM CONTRACTOR

- a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the WAPCOS shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge or the WAPCOS shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalisation or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the WAPCOS shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the WAPCOS or any contracting

person through the Engineer-in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or WAPCOS will be kept withheld or retained as such by the Engineer-in-Charge or WAPCOS till the claim arising out of or under the contract is determined by the arbitrator(if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the WAPCOS shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

- b) WAPCOS shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for WAPCOS to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by WAPCOS to the contractor, without any interest thereon whatsoever.

Provided that the WAPCOS shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the WAPCOS on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by WAPCOS.

CLAUSE 29A : LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the WAPCOS or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or WAPCOS or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the WAPCOS or with such other person or persons. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge or the WAPCOS will be kept withheld or retained as such by the Engineer-in-Charge or the WAPCOS or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 29B: EMPLOYMENT OF COAL MINING OR CONTROLLED AREA LABOUR NOT PERMISSIBLE

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.

Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor.

The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to WAPCOS a sum calculated at the rate of Rs.10/- per day per labourer. The certificate of the Engineer-in-Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

Explanation:- Controlled Area means the following areas:

Districts of Dhanbad, Hazaribagh, Jamtara - a Sub-Division under Santhal Pargana Commissionery, Districts of Bankura, Birbhum, Burdwan, District of Bilaspur.

Any other area which may be declared a Controlled Area by or with the approval of the Central Government.

CLAUSE 30 : WATER FOR WORKS

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

- (k) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.
- (l) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

CLAUSE 30A :WATER SUPPLY, IF AVAILABLE

Water if available may be supplied to the contractor by the WAPCOS subject to the following conditions:-

- (i) The water charges @ 1 % shall be recovered on gross amount of the work done.
- (ii) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply.
- (iii) The WAPCOS do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.

CLAUSE 30B : ALTERNATE WATER ARRANGEMENTS

- (i) Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the Government, no charge

shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.

- (ii) The contractor shall be allowed to construct temporary wells in the proposed land for Construction for taking water for construction purposes only after he has got permission of the Engineer-in- Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

CLAUSE 31 : HIRE OF PLANT & MACHINERY

The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work.

CLAUSE 32 : EMPLOYMENT OF TECHNICAL STAFF AND EMPLOYEES

Contractors Superintendence, Supervision, Technical Staff & Employees

- (i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Even of the contractor (or partner(s) in case of firm/ company) is himself / herself an Engineers, it is necessary on the part of the contractor to Employ principal technical representative / technical representative (s).

The Engineer-in-Charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s) The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Engineer-in-Charge and/or his designated representative to take

instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements/checked measurements/ test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non refundable) shall be effected from the contractor and the decision of the Engineer-In-Charge as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) along with every on account bill/ final bill and shall produce evidence if at any time so required by the Engineer-in-Charge.

(ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in- Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

CLAUSE 33 : LEVY/TAXES PAYABLE BY CONTRACTOR

- i. Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and Government shall not entertain any claim whatsoever in this respect except as provided under Clause 34.

- ii. The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.

If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Government of India and does not any time become payable by the contractor to the State Government, Local authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor

CLAUSE 34 : CONDITIONS FOR REIMBURSEMENT OF LEVY/TAXES IF LEVIED AFTER RECEIPT OF TENDERS

- (i) All tendered cost shall be inclusive of all taxes and levies (except GST) payable under respective statutes. However, if any further tax or levy or cess is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies/cess, the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the WAPCOS attributable to delay in execution of work within the control of the contractor.

Effect of variation in rates of Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease.

Provided further that for Building and Other Construction Workers Welfare Cess or any tax, levy or cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/cess.

Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay and is under penalty as determined by WAPCOS for extension of time.

- (ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Government and/or the Engineer-in-Charge and shall also furnish such other information/document as the Engineer-in-Charge may require from time to time.
- (iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, or variation or repeal of such tax or levy or cess give a written notice thereof to the Engineer-in-charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE 35 : TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Engineer-In-Charge on behalf of the WAPCOS shall have the option of terminating the contract without compensation to the contractor.

CLAUSE 36 : IF RELATIVE WORKING IN WAPCOS THEN THE CONTRACTOR NOT ALLOWED TO TENDER

The contractor shall not be permitted to tender for works in the WAPCOS responsible for award and execution of contracts in which his near relative is posted in WAPCOS. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Officer in the WAPCOS. Any breach of this condition by the contractor would render him liable to be debarred from tendering in WAPCOS any breach of this condition.

NOTE: By the term “near relatives” is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

CLAUSE 37 : NO GAZETTED ENGINEER TO WORK AS CONTRACTOR WITHIN ONE YEAR OF RETIREMENT

No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering department of the Government of India shall work as a contractor or employee of a contractor for a period of one year after his retirement from government service without the previous permission of Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government of India as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

CLAUSE 38 : THEORETICAL CONSUMPTION OF MATERIAL

- (i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance - (see Clause 10), theoretical quantity of materials issued by the WAPCOS for use in the work shall be calculated on the basis and method given hereunder:-
 - (a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Special Conditions of Contract. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.
 - (b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappages, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.
 - (c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.
 - (d) For any other material as per actual requirements.

Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Special Conditions of Contract. The difference in the net quantities of material actually issued to the contractor and the theoretical

quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in-Charge within fifteen days of the issue of written notice by the Engineer-in-charge

- (ii) The said action under this clause is without prejudice to the right of the WAPCOS to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 39 : COMPENSATION DURING WARLIKE SITUATION

The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-In-Charge upto Rs. 5,000/- and by the WAPCOS for a higher amount. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-Charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work. In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer-In-Charge.

CLAUSE 40 : APPRENTICES ACT PROVISIONS TO BE COMPLIED WITH

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the WAPCOS may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CLAUSE 41 : RELEASE OF SECURITY DEPOSIT AFTER LABOUR CLEARANCE

Release of Security Deposit of the work shall not be refunded till the contractor produces a clearance deposit after labour certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is

pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

CLAUSE 42: INSURANCE

1. Requirements

Before commencing execution of works, unless stated otherwise in the special conditions of contract, it shall be obligatory for the contractor to obtain at his own cost stipulated insurance cover under the following requirements:

- a) Contractor's all risk and Third Party Cover.
- b) Liability under the workmen's compensation Act, 1923, Minimum Wages Act, 1948 and Contract Labour (Regulation and Abolition) Act, 1970.
- c) Accidents to staff, Engineers, Supervisors and others who are not governed by workmen's compensation Act.
- d) Damage to material, machinery and works due to fire theft etc.
- e) Any other risk to be covered by insurance as may be specified by the employer in the special conditions of contract.

2. Policy in Joint Names of Contractor and Employer

The policy referred to under sub-clause 46(1) above shall be obtained in the joint names of the contractor and the employer and shall inter-alia provide coverage against the following, arising out of or in connection with execution of works, their maintenance and performance of the contract.

- a) Loss of life or injury involving public, employee of the contractor, or that of employer and Engineer, labour etc.
- b) Injury, loss or damage to the works or property belonging to public, government bodies, local authorities, utility organizations, contractors, employer or others.

3. Currency of Policy

The policies shall remain in force throughout the period of execution of the works and till the expiry of the defect liability period. The contractor shall, whenever called upon, produce to the engineer or his representative the various insurance policies obtained by him as also the rates of premia and the premia paid by him to ensure that the policies indeed continue to be in force. If the contractor fails to effect or keep in force or provide adequate cover in the insurance policies mentioned in the sub clause 46(1) or any other insurance he might be required to effect under the contract, then in such cases, the employer may effect and keep in force any such insurance or further insurance and the cost and expenses incurred by him in this regard shall be deductible from payments due to the contractor or from the contractor's performance security.

CLAUSE 43: CONDITIONS SPECIFIC TO GREEN BUILDINGS PRACTICES CLAUSE

The contractor shall strictly adhere to the following conditions as part of his contractual obligations:

1. SITE

- 1.1** The contractor shall ensure that adequate measures are taken for the prevention of erosion of the top soil during the construction phase. The contractor shall implement the Erosion and Sedimentation Control Plan (ESCP) provided to him by the Engineer-in-charge as part of the larger Construction Management Plan (CMP). The

contractor shall obtain the Erosion and Sedimentation Control Plan (ESCP) Guidelines from the Engineer-in-charge and then prepare “working plan” for the following month’s activities as a CAD drawing showing the construction management, staging & ESCP. At no time soil should be allowed to erode away from the site and sediments should be trapped where necessary.

- 1.2** The contractor shall ensure that all the top soil excavated during construction works is neatly stacked and is not mixed with other excavated earth. The contractors shall take the clearance of the architects / Engineer-in-charge before any excavation. Top soil should be stripped to a depth of 20 cm (centimetres) from the areas to be disturbed, for example proposed area for buildings, roads, paved areas, external services and area required for construction activities etc. It shall be stockpiled to a maximum height of 40 cm in designated areas, covered or stabilised with temporary seeding for erosion prevention and shall be reapplied to site during plantation of the proposed vegetation. Top soil shall be separated from subsoil, debris and stones larger than 50 mm (millimetre) diameter. The stored top soil may be used as finished grade for planting areas.
- 1.3** The contractor shall carry out the recommendations of the soil test report for improving the soil under the guidance of the Engineer-in-charge who would also advise on the timing of application of fertilizers and warn about excessive nutrient levels.
- 1.4** The contractor shall carry out post-construction placement of topsoil or other suitable plant material over disturbed lands to provide suitable soil medium for vegetative growth. Prior to spreading the topsoil, the sub-grade shall be loosened to a depth of 50mm to permit bonding. Topsoil shall be spread uniformly at a minimum compacted depth of 50mm on grade 1:3 or steeper slopes, a minimum depth of 100mm on shallower slopes. A depth of 300mm is preferred on relatively flatter land.
- 1.5** The Contractor should follow the construction plan as proposed by the Engineer-in-charge to minimize the site disturbance such as soil pollution due to spilling. Use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site. Protect top soil from erosion by collection storage and reapplication of top soil, constructing sediment basin, contour trenching, mulching etc.
- 1.6** No excavated earth shall be removed from the campus unless suggested otherwise by Engineer-in-charge. All subsoil shall be reused in backfilling/landscape, etc as per the instructions of the Engineer-in-charge
- 1.7** The contractor shall not change the natural gradient of the ground unless specifically instructed by the architects / landscape consultant. This shall cover all natural features like water bodies, drainage gullies, slopes, mounds, depressions, rocky outcrops, etc. Existing drainage patterns through or into any preservation area shall not be modified unless specifically directed by the Engineer-in-charge.
- 1.8** The contractor shall not carry out any work which results in the blockage of natural drainage.
- 1.9** The contractor shall ensure that existing grades of soil shall be maintained around existing vegetation and lowering or raising the levels around the vegetation is not allowed unless specifically directed by the Engineer-in-charge
- 1.10** Contractor shall reduce pollution and land development impacts from automobiles use during construction.
- 1.11** Overloading of trucks is unlawful and creates and erosion and sedimentation problems, especially when loose materials like stone dust, excavated earth, sand etc. are moved. Proper covering must take place. No overloading shall be permitted.

2. CONSTRUCTION PHASE AND WORKER FACILITIES

- 2.1 The contractor shall specify and limit construction activity in preplanned/ designated areas and shall start construction work after securing the approval for the same from the Engineer-in-charge. This shall include areas of construction, storage of materials, and material and personnel movement.
- 2.2 Preserve and Protect Landscape during Construction
- a) The contractor shall ensure that no trees, existing or otherwise, shall be harmed and damage to roots should be prevented during trenching, placing backfill, driving or parking heavy equipment, dumping of trash, oil, paint, and other materials detrimental to plant health. These activities should be restricted to the areas outside of the canopy of the tree, or, from a safe distance from the tree/plant by means of barricading. Trees will not be used for support; their trunks shall not be damaged by cutting and carving or by nailing posters, advertisements or other material. Lighting of fires or carrying out heat or gas emitting construction activity within the ground, covered by canopy of the tree is not to be permitted.
 - b) The contractor shall take steps to protect trees or saplings identified for preservation within the construction site using tree guards of approved specification.
 - c) The contractor shall conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity. Contractor should limit all construction activity within the specified area as per the Construction Management Plan (CMP) proposed by the Engineer-in-charge. All the existing trees should be preserved, if not possible than compensate the loss by re-planting trees in the proportion of 1:3.
 - d) The contractor shall avoid cut and fill in the root zones, through delineating and fencing the drip line (the spread limit of a canopy projected on the ground) of all the trees or group of trees. Separate the zones of movement of heavy equipment, parking, or excessive foot traffic from the fenced plant protection zones.
 - e) The contractor shall ensure that maintenance activities shall be performed as needed to ensure that the vegetation remains healthy. The preserved vegetated area shall be inspected by the Engineer-in-charge at regular intervals so that they remain undisturbed. The date of inspection, type of maintenance or restorative action followed shall be recorded in the logbook.
- 2.3 Contractor shall be required to develop and implement a waste management plan, quantifying material diversion goals. He shall establish goals for diversion from disposal in landfills and incinerators and adopt a construction waste management plan to achieve these goals. A project-wide policy of "Nothing leaves the Site" should be followed. In such a case when strictly followed, care would automatically be taken in ordering and timing of materials such that excess doesn't become "waste". The Contractor's ingenuity is especially called towards meeting this prerequisite/ credit (GRIHA). Consider recycling cardboard, metal, brick, acoustical tile, concrete, plastic, clean wood, glass, gypsum wallboard, carpet and insulation. Designate a specific area(s) on the construction site for segregated or commingled collection of recyclable material, and track recycling efforts throughout the construction process. Identify construction haulers and recyclers to handle the designated materials. Note that diversion may include donation of materials to charitable organizations and salvage of materials on-site.

- 2.4 Contractor shall collect all construction waste generated on site. Segregate these wastes based on their utility and examine means of sending such waste to manufacturing units which use them as raw material or other site which require it for specific purpose. Typical construction debris could be broken bricks, steel bars, broken tiles, spilled concrete and mortar etc.
- 2.5 The contractor shall provide clean drinking water for all workers
- 2.6 The contractor shall provide the minimum level of sanitation and safety facilities for the workers at site. The contractor shall ensure cleanliness of workplace with regard to the disposal of waste and effluent; provide clean drinking water and latrines and urinals as per applicable standard. Adequate toilet facilities shall be provided for the workman within easy access of their place of work. The total no. to be provided shall not be less than 1 per 30 employs in any one shift. Toilet facilities shall be provided from the start of building operations, connection to a sewer shall be made as soon as practicable. Every toilet shall be so constructed that the occupant is sheltered from view and protected from the weather and falling objects. Toilet facilities shall be maintained in a sanitary condition. A sufficient quantity of disinfectant shall be provided. Natural or artificial illumination shall be provided.
- 2.7 The contractor shall ensure that air pollution due to dust/generators is kept to a minimum, preventing any adverse effects on the workers and other people in and around the site. The contractor shall ensure proper screening, covering stockpiles, covering brick and loads of dusty materials, wheel-washing facility, gravel pit, and water spraying. Contractor shall ensure the following activities to prevent air pollution during construction:
- Clear vegetation only from areas where work will start right away
 - Vegetate / mulch areas where vehicles do not ply.
 - Apply gravel / landscaping rock to the areas where mulching / paving is impractical
 - Identify roads on-site that would be used for vehicular traffic. Upgrade vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral types that make up the surface & base. Add surface gravel to reduce source of dust emission. Limit amount of fine particles (smaller than 0.075mm) to 10 – 20%
 - Water spray, through a simple hose for small projects, to keep dust under control. Fine mists should be used to control fine particulate. However, this should be done with care so as not to waste water. Heavy watering can also create mud, which when tracked onto paved public roadways, must be promptly removed. Also, there must be an adequate supply of clean water nearby to ensure that spray nozzles don't get plugged. Water spraying can be done on:
 - a) Any dusty materials before transferring, loading and unloading
 - b) Area where demolition work is being carried out
 - c) Any un-paved main haul road
 - d) Areas where excavation or earth moving activities are to be carried out
 - The contractor shall ensure that the speed of vehicles within the site is limited to 10 km/hr.

- All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust / particulate emissions.
 - Spills of dirt or dusty materials will be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil / ground or runoff in nearby areas
 - Provide hoardings of not less than 3m high along the site boundary, next to a road or other public area
 - Provide dust screens, sheeting or netting to scaffold along the perimeter of the building Cover stockpiles of dusty material with impervious sheeting
 - Cover dusty load on vehicles by impervious sheeting before they leave the site
- 2.8 Contractor shall be required to provide an easily accessible area that serves the entire building and is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals. He shall coordinate the size and functionality of the recycling areas with the anticipated collections services for glass, plastic, office paper, newspaper, cardboard, and organic wastes to maximize the effectiveness of the dedicated areas. Consider employing cardboard balers, aluminium can crushers, recycling chutes, and collection bins at individual workstations to further enhance the recycling program.
- 2.9 The contractor shall ensure that no construction leach ate (Ex: cement slurry), is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including, reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/swale, etc. shall be constructed to carry the pollutant-laden water directly to the treatment device or facility (municipal sewer line).
- 2.10 Staging (dividing a construction area into two or more areas to minimize the area of soil that will be exposed at any given time) should be done to separate undisturbed land from land disturbed by construction activity and material storage.
- 2.11 The contractor shall comply with the safety procedures, norms and guidelines (as applicable) as outlined in the document Part 7 _Constructional practices and safety, 2005, National Building code of India, Bureau of Indian Standards. A copy of all pertinent regulations and notices concerning accidents, injury and first-aid shall be prominently exhibited at the work site. Depending upon the scope & nature of work, a person qualified in first-aid shall be available at work site to render and direct first-aid to casualties. A telephone may be provided to first-aid assistant with telephone numbers of the hospitals displayed. Complete reports of all accidents and action taken thereon shall be forwarded to the competent authorities.
- 2.12 The contractor shall ensure the following activities for construction workers safety, among other measures:

- Guarding all parts of dangerous machinery.
 - Precautionary signs for working on machinery
 - Maintaining hoists and lifts, lifting machines, chains, ropes, and other lifting tackles in good condition.
 - Durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
 - Ensuring that walking surfaces or boards at height are of sound construction and are provided with safety rails or belts.
 - Provide protective equipment; helmets etc.
 - Provide measures to prevent fires. Fire extinguishers and buckets of sand to be provided in the fire-prone area and elsewhere.
 - Provide sufficient and suitable light for working during night time.
- 2.13 Adopt additional best practices, prescribed norms in construction industry.
- 2.14 The storage of material shall be as per standard good practices as specified in Part 7, Section 2 – Storage, Stacking and Handling practices, NBC 2005 and shall be to the satisfaction of the Engineer-in-charge to ensure minimum wastage and to prevent any misuse, damage, inconvenience or accident. Watch and ward of the Contractor's materials shall be his own responsibility. There should be a proper planning of the layout for stacking and storage of different materials, components and equipments with proper access and proper manoeuvrability of the vehicles carrying the materials. While planning the layout, the requirements of various materials, components and equipments at different stages of construction shall be considered. The Owner shall not take any responsibility on any account.
- 2.15 The contractor shall provide for adequate number of garbage bins around the construction site and the workers facilities and will be responsible for the proper utilisation of these bins for any solid waste generated during the construction. The contractor shall ensure that the site and the workers facilities are kept litter free. Separate bins should be provided for plastic, glass, metal, biological and paper waste and labelled in both Hindi and English.
- 2.16 The contractor shall prepare and submit 'Spill prevention and control plans' before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.
- 2.17 Contractor shall collect the relevant material certificates for materials with high recycled (both post-industrial and post-consumer) content, including materials for structural use like TMT steel rolled with high percentage of recycled steel, and RMC mix with fly-ash etc. (see appendix)
- 2.18 Contractor shall collect the relevant material certificates for rapidly renewable materials such as bamboo, wool, cotton insulation, agrifiber, linoleum, wheat board, strawboard and cork.
- 2.19 Contractor shall adopt an IAQ (Indoor Air Quality) management plan to protect the system during construction, control pollutant sources, and interrupt pathways for contamination. He shall sequence installation of materials to avoid contamination of absorptive materials such as insulation, carpeting, ceiling tile, and gypsum wallboard. He shall also protect stored on-site or installed absorptive materials from moisture damage.

2.20 The contractor shall ensure that a flush out of all internal spaces is conducted prior to andover. This shall comprise an opening of all doors and windows for 14 days to vent out any toxic fumes due to paints, varnishes, polishes, etc.

2.21 Contractor shall make efforts to reduce the quantity of indoor air contaminants that are dorous or potentially irritating harmful to the comfort and well-being of installer and building occupants. Contractor shall ensure that the VOC (Volatile Organic Compounds) content of paints, coatings and primers used must not exceed the VOC content limits mentioned below:

Paints

Non-flat - 150 g/L

Flat (Mat) - 50 g/L

Anti corrosive/ anti rust - 250 g/L

Coatings

Clear wood finishes

Varnish - 350 g/L

Lacquer - 550 g/L

Floor coatings - 100 g/L

Stains - 250 g/L

Sealers

Waterproofing sealer - 250 g/L

Sanding sealer - 275 g/L

Other sealers - 200 g/L

The VOC (Volatile Organic Compounds) content of adhesives and sealants used must be less than VOC content limits mentioned:

Architectural Applications VOC Limit(g/l less water)

Indoor Carpet adhesives - 50

Carpet Pad Adhesives - 50

Wood Flooring Adhesive - 100

Rubber Floor Adhesives - 60

Sub Floor Adhesives - 50

Ceramic Tile Adhesives - 65

VCT and Asphalt Tile adhesives - 50

Dry Wall and Panel Adhesives - 50

Structural Glazing Adhesives - 100

Multipurpose Construction Adhesives - 70

Substrate Specific Application VOC Limit (g/l less water)

Metal to Metal - 30

Plastic Foams - 50

Porous material (except wood) - 50

Wood - 30

Fiber Glass – 80

2.22 Wherever required, Contractor shall meet and carry out documentation of all activities on site, supplementation of information, and submittals in accordance with GRIHA program standards and guidelines. Towards meeting the aforementioned building environmental rating standard(s) expert assistance shall be provided to him up on request.

2.23 **WATER USE DURING CONSTRUCTION**

Contractor should spray curing water on concrete structure and shall not allow free flow of water. After liberal curing on the first day, all the verticals surfaces of concrete

structures should be painted with curing chemical to save water nothing extra shall be paid. Concrete structures should be kept covered with thick cloth/gunny bags and water should be sprayed on them. Contractor shall do water ponding on all sunken slabs using cement and sand mortar.

- 2.24 The Contractor shall remove from site all rubbish and debris generated by the Works and keep Works clean and tidy throughout the Contract Period. All the serviceable and non-serviceable (malba) material shall be segregated and stored separately. The malba obtained during construction shall be collected in well-formed heaps at properly selected places, keeping in a view safe condition for workmen in the area. Materials which are likely to cause dust nuisance or undue environmental pollution in any other way, shall be removed from the site at the earliest and till then they shall be suitably covered. Glass & steel should be dumped or buried separately to prevent injury. The work of removal of debris should be carried out during day. In case of poor visibility artificial light may be provided.

2.25 MATERIALS & FIXTURES FOR THE PROJECT

- 2.26 The contractor shall endeavour to source most of the materials for construction at this project within a distance of 800 km radius from the project site. Contractor shall collect the relevant material certificates to prove the same

- h) Any material that is to be sourced from outside the prescribed radius shall be done after securing the necessary approval from the Engineer-in-charge.
- i) All cement used at site for reinforced concrete, precast members, mortar, plaster, building blocks, etc shall be PPC (Ordinary Portland Cement). The PPC must meet the requirements of IS 1489: 1991. (Minimum 25% replacement of cement with fly ash in PPC (Portland Pozzolona Cement) by weight of the cement used in the overall RC for meeting the equivalent strength requirements).
- j) As a measure to reduce wastage and water consumption during construction, the contractor shall source or set up the infrastructure for a small scale ready mix concrete, all concreting works at site shall utilise only batch mix concrete.
- k) The contractor has to comply as per MoEF issued notification 8.0.763(E) dated 14th Sept.1999 containing directive for greater fly ash utilization, where it stipulates that ii. Every construction agency engaged in the construction of buildings within a radius of 50 km radius of a Thermal Power Plant, have to use of 100% fly ash based bricks/blocks in their construction. Any brick/block containing more than 25% fly ash is designated as fly ash brick/block. As per GRIHA credits, bricks / blocks should contain more than 40% fly ash.
- l) The contractor shall ensure that sand from approved source is used in place of sand in all concreting works unless specifically instructed otherwise by the Engineer-in-charge.
- m) Timber and aluminum use should be minimised in the project. If used, timber shall constitute of reclaimed timber and aluminum shall constitute recycled content. The source of such reclaimed timber shall be approved by the Engineer-in-charge.
- n) The contractor shall ensure that nontoxic anti-termite and other pest control is strictly used.
- o) The contractor shall ensure that all paints, polishes, adhesives and sealants used both internally and externally, on any surface, shall be Low VOC products. The contractor shall get prior approval from the Engineer-in-charge before the application of any such material.
- p) All plumbing and sanitary fixtures installed shall be as per the requirement of the GRIHA and shall adhere to the minimum LPM and LPF mentioned.

- q) The contractor shall employ 100% zero ODP (ozone depletion potential) insulation; HCFC hydro-chlorofluorocarbon)/ and CFC (chlorofluorocarbon) free HVAC and refrigeration equipment's and/halon-free fire suppression and fire extinguishing systems.
- r) The contractor shall ensure that all composite wood products/agro-fibre products used for cabinet work, etc do not contain any added urea formaldehyde resin.

2.28 **CONSTRUCTION WASTE**

- a) Contractor shall ensure that wastage of construction material is kept to a maximum of 3%.
- b) All construction debris generated during construction shall be carefully segregated and stored in a demarcated waste yard. Clear, identifiable areas shall be provided for each waste type. Employ measures to segregate the waste on site into inert, chemical, or hazardous wastes.
- c) All construction debris shall be used for road preparation, back filling, etc, as per the instructions of the Engineer-in-charge, with necessary activities of sorting, crushing, etc.
- d) No construction debris shall be taken away from the site, without the prior approval of the Engineer-in-charge.
- e) The contractor shall recycle the unused chemical/hazardous wastes such as oil, paint, batteries, and asbestos
- f) If and when construction debris is taken out of the site, after prior permissions from the Project Manager, then the contractor shall ensure the safe disposal of all wastes and will only dispose of any such construction waste in approved dumping sites.
- g) Inert waste to be disposed off by Municipal Corporation/ local bodies at landfill sites.

2.29 **Documentation**

- a) The contractor shall, during the entire tenure of the construction phase, submit the following records to the Engineer-in-charge on a monthly basis:
 - i) Water consumption in litres
 - ii) Electricity consumption in 'kwh' units
 - iii) Diesel consumption in litres
 - iv) Quantum of waste generated at site and the segregated waste types divided into inert, chemical and hazardous wastes.
 - v) Digital photo documentation to demonstrate compliance of safety guidelines as specified here.
- b) The contractor shall, during the entire tenure of the construction phase, submit the following records to the Engineer-in-charge on a weekly basis:
 - i) Quantities of material brought into the site, including the material issued to the contractor.
 - ii) Quantities of construction debris (if at all) taken out of the site
 - iii) Digital photographs of the works at site, the workers facilities, the waste and other material storage yards, pre-fabrication and block making works, etc as guided by the Engineer-in-charge.
- c) The contractor shall submit one document after construction of the buildings, a brief description along with photographic records to show that other areas have not been disrupted during construction. The document should also include brief explanation and photographic records to show erosion and sedimentation control measures adopted. (Document CAD drawing showing site plan details of existing vegetation, existing buildings, existing slopes and site drainage pattern, staging and spill

- prevention measures, erosion and sedimentation control measures and measures adopted for top soil preservation during construction
- d) The contractor shall submit to the Engineer-in-charge after construction of the buildings, a detailed as built quantification of the following:
- i) Total materials used,
 - ii) Total top soil stacked and total reused
 - iii) Total earth excavated,
 - iv) Total waste generated,
 - v) Total waste reused,
 - vi) Total water used,
 - vii) Total electricity, and
 - viii) Total diesel consumed.
- e) The contractor shall submit to the Engineer-in-charge, before the start of construction, a site plan along with a narrative to demarcate areas on site from which top soil has to be gathered, designate area where it will be stored, measures adopted for top soil preservation and indicate areas where it will be reapplied after construction is complete.
- f) The contractor shall submit to the Engineer-in-charge, a detailed narrative (not more than 250 words) on provision for safe drinking water and sanitation facility for construction workers and site personnel.
- g) Provide supporting document from the manufacturer of the cement specifying the fly-ash content in PPC used in reinforced concrete.
- h) Provide supporting document from the manufacturer of the pre-cast building blocks specifying the fly ash content of the blocks used in an infill wall system.
- i) The contractor shall, at the end of construction of the buildings, submit to the Engineer-in-charge, submit following information, for all material brought to site for construction purposes, including manufacturer's certifications, verifying information, and test data, where Specifications sections require data relating to environmental issues including but not limited to:

Source of products: Supplier details and location of the supplier and brand name.

- ii) Project Recyclability: Submit information to assist Owner and WAPCOS in recycling materials involved in shipping, handling, and delivery, and for temporary materials necessary for installation of products.
- iii) Recycled Content: Submit information regarding product post industrial recycled and post consumer recycled content. Use the "Recycled Content Certification Form", to be provided by the Commissioning Authority appointed for the Project.
- iv) Product Recyclability: Submit information regarding product and product's component's recyclability including potential sources accepting recyclable materials.
- v) Clean tech: Provide pollution clearance certificates from all manufacturers of materials
- vi) Indoor Air quality and Environmental Issues: Submit following certificates:
 - a) Certifications from manufacturers of Low VOC paints, adhesives, sealant and polishes used at this particular project site.
 - b) Certification from manufacturers of composite wood products/agro fibre products on the absence of added urea formaldehyde resin in the products supplied to them to this particular site.

- c) Submit environmental and pollution clearance certificates for all diesel generators installed as part of this project.
- j) Provide total support to the Engineer-in-charge appointed by the WAPCOS in completing all Green Building Rating related formalities, including signing of forms, providing signed letters in the contractor's letterhead.

2.30 EQUIPMENT

- a) To ensure energy efficiency during and post construction all pumps, motors and engines used during construction or installed, shall be subject to approval and as per the specifications of the architects.
- b) All lighting installed by the contractor around the site and at the labour quarters during construction shall be CFL/LED bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed.

The contractor is expected to go through all other conditions of the GRIHA rating stipulations, which can be provided to him by the architects.

Failure to adhere to any of the above-mentioned items, without necessary clearances from the architects and the Engineer-in-charge, shall be deemed as a violation of contract and the contractor shall be held liable for penalty as determined by the architects.

CLAUSE 44: PAYMENT

1. Payment Schedule

The Payment Schedule includes a schedule setting out each Milestone Event to be achieved in a month for the Works. (Milestones are defined in Scope of work & payment terms in VOL II of this document i.e., Financial Bid)

2. Contractor's Application for Payment

From the date of issue of the Notice to Proceed, on the 5th (fifth) Business Day of any month, the Contractor may submit a Request for Payment, to WAPCOS Limited Representative in respect of the preceding month.

Within each Request for Payment the Contractor shall show separately:

- (i) the amounts which the Contractor claims to be payable as the cost of the Works completed during that month; and
- (ii) the cumulative amount of all prior payments made by WAPCOS Limited; and
- (iii) any amounts to which the Contractor considers are due and payable to it in accordance with the provisions of the Contract.

The Contractor's Request for Payment shall:

- (i) be prepared on forms in the form and in a number advised by WAPCOS Limited Representative; and
- (ii) contain confirmation of the relevant Milestone Events which, in the opinion of the Contractor have been achieved in that month which applies to each such Milestone Event; and
- (iii) be accompanied by:

- (a) Copy of relevant records of measurement of works, jointly taken and signed by both the parties;
- (b) A status report describing in such detail as may reasonably request, the percentage of any uncompleted Milestone Event for the month in question and the work to be undertaken by the Contractor prior to the next Request for Payment;
- (c) Certification by WAPCOS Limited Representative confirming that the Milestone Events referred to in the Request for Payment have been achieved.
- (d) Confirmation by the Contractor of any amounts due and owing from the Contractor to WAPCOS Limited pursuant to the Contract;
- (e) The Contractor's certification that the quality of all completed Works accords with the requirements of the Contract;
- (f) The Contractor's certification that each obligation, item of cost or expense mentioned in that Request for Payment has not been the basis of any previous payment.
- (g) The Contractor's certification that it has reviewed all financial and budget data contained in the Request for Payment;
- (h) The Contractor's certification that the quality of all completed Works accords with the requirements of the Contract;
- (i) The Contractor's certification that each obligation, item of cost or expense mentioned in that Request for Payment has not been the basis of any previous payment; and
- (j) The Contractor's certification that each Subcontractor who performed part of the Works which was included in the immediately preceding Certificates of Payment was paid all amounts then due to it for such Works
- (k) The Contractor providing evidence of the validity of the Contractor's Insurances.

Preference to Make In India

- The provisions of revised 'Public Procurement (Preference to Make in India) Order 2017-Revision' issued by Department of Industrial Policy and Promotion under Ministry of Commerce and Industry vide letter no.-P45021/2/2017-PP (BE-II) as amended on 16.09.2020 shall be applicable to the bidding process and award of the contract shall be done accordingly.
- Verification of Local Content
 - i. The bidder at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement of the tender. They shall also give details of the location(s) at which the local value addition is made.
 - ii. In cases of procurement for a value in excess of Rs 10 Crores, the bidder shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

Rule 144 (Xi) in General Financial Rules (GFRs) 2017

- i. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- ii. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium

or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

- iii. "Bidder from a country which shares a land border with India" for the purpose of this Order means:-
 - a) An entity incorporated, established or registered in such a country; or
 - b) A subsidiary of an entity incorporated, established or registered in such a country; or
 - c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d) An entity whose beneficial owner is situated in such a country; or
 - e) An Indian (or other) agent of such an entity; or
 - f) A natural person who is a citizen of such a country; or
 - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- iv. The beneficial owner for the purpose of 1.4.2.(iii) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercise control through other means.

Explanation-

 2. "Controlling ownership interest" means ownership of or entitlement to more than twenty- five per cent. Of shares or capital or profits of the company;
 3. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 4. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
 5. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profit of such association or body of individuals;
 6. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 7. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- v. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

SECTION– IV

SPECIAL CONDITIONS OF CONTRACT

SECTION - IV: SPECIAL CONDITIONS OF CONTRACT

1.0 SPECIAL CONDITIONS OF CONTRACT

The Special Condition of Contract (SCC) shall be followed by the Contractor in addition to the General Condition of Contract (GCC) of tender document. The following General Condition of Contract of this tender are modified/added as detailed below. In case of any discrepancy between GCC and SCC, the SCC will succeed over GCC.

Clause No.	Description	Applicability/Modified/ Added
GENERAL RULES AND DIRECTIONS		
4A, 4B, 8, 9 &10	Refer to GCC	Not Applicable
11 (ii)	Refer to GCC	Following clause Added iii) 2.5% shall be deducted from the each running bill as Retention Money, Retention Money shall be returned after the defect liability period is over Or The contractor can get back the cash deducted from RA Bills (Retention Money) by giving Bank Guarantee of Scheduled bank / Nationalized Bank of equivalent amount which remains valid till the expiry of Defect liability period.
20	List of works form	Not Applicable
DEFINITIONS		
Added	Principal Employer/ Owner/Client means Central Coalfields Limited, Ranchi, Jharkhand.	
2(iii)	Work / Project Means: As Mentioned in NIT	
2(iv)	Site / Location Means As Mentioned in NIT	
2 (vi & vii)	Engineer-In-Charge & Accepting Authority Will be intimated to the successful Bidder at the time of issue of Notice to Proceed the works.	
2 (x)	Market Rate Percentage on cost of materials and labour to cover all overheads and profits	15%
2(xi)	Standard Schedule of Rates for works	Work will be executed as per the provisions of Delhi Schedule of Rates 2021.
2(xvi)	Date of Commencement of work	7 days after date of award of work (LOI)
CLAUSES OF CONTRACT		
Clause 1	Performance Guarantee a) Performance Guarantee.	Applicable 5% of Award Value
	b) Time allowed for submission of Performance	15 days

Clause No.	Description	Applicability/Modified/ Added
	Guarantee from the date of issue of letter of Acceptance. c) Validity of Performance Guarantee d) Release of Performance Guarantee	The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 1 year claim period beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest as as per clause 1 (ii) below in SCC. Bank Guarantee of Scheduled Bank or Nationalized bank shall also be accepted as performance Guarantee.
Clause 1 (ii)	The Performance Guarantee	Modified as follows The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 1 year claim period beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.
Clause 1 (vi) Additional clause	Performance Security During O&M period of 5 years	Added To ensure the successful performance of operation and maintenance of 5 years, the contractor will be required to submit five (5) number of bank guarantees each of 2% of the award value. These bank guarantees shall be submitted after release of 90% payment of total awarded value. Further payment shall only be released after submission of Bank Guarantees as per following requirement. The 5 bank guarantees against performance security of operation and maintenance will be as

Clause No.	Description	Applicability/Modified/ Added
		per following details 1. 1st BG for an amount of 2.0% of the tendered cost valid for 1 year 2. 2nd BG for an amount of 2.0% of the tendered cost valid for 2 years 3. 3rd BG for an amount of 2.0% of the tendered cost valid for 3 years 4. 4th BG for an amount of 2.0% of the tendered cost valid for 4 years 5. 5th BG for an amount of 2.0% of the tendered cost valid for 5 years Each BG shall be returned to the contractor after expiry of the validity period of each BG on completion of the operation & maintenance period of each year certified by the Competent Authority. (OR) Additional security deposit of 10 % against the each running account bill of the contractor during construction phase shall be deducted and retained. The same shall be released as per following schedule during 5 years of operation of maintenance. 1. 2% out of 10% deducted additional security deposit shall be released after successful completion of 1st year of operation & maintenance. 2. 2% out of 10% deducted additional security deposit shall be released after successful completion of 2nd year of operation & maintenance. 3. 2% out of 10% deducted additional security deposit shall be released after successful completion of 3rd year of operation & maintenance. 4. 2% out of 10% deducted additional security deposit shall be released after successful completion of 4th year of operation & maintenance. 5. 2% out of 10% deducted additional security deposit shall be released after successful completion of 5th year of operation & maintenance. Security Deposit shall be released to the contractor on completion of the operation & maintenance

Clause No.	Description	Applicability/Modified/ Added
		period of each year certified by the Competent Authority.
Clause 1A	Security/Retention Deposit	Applicable 2.5% of Tendered Value/Actual value
	Release of Security Deposit/ Retention Money	The Retention Money (@ 2.5%) deducted through RA Bills / Final Bill (and permitted to be covered in Bank Guarantee) will also be released without any interest. After Successful Completion of Defect Liability period (5 years) without any interest. However, Security deposit as deducted above can be released after completion of work against bank guarantee of equivalent amount issued by a Scheduled Bank or Nationalized bank with validity up to completion of defects liability period
Clause 2	Compensation for Delay	Applicable With maximum rate of 0.50% of the awarded cost of work per week. (Maximum up to 10% of the actual cost of work which includes awarded cost of work, cost of extra items/ substituted items and cost of deviation, if any.)
Clause 5	Time and Extension for Delay	Applicable
	Number of days from the date of issue of letter of acceptance for reckoning date of start	7 days
	Stipulated time of completion of project	As mentioned in NIT
Clause 7	Payment on Intermediate Certificate to be Regarded as advance	Not Applicable
New Clause 7C (Added)	Payment	The Bidder (Contractor) acknowledges that under the present Tender and Work Order/ Contract Agreement (if work is awarded to bidder), WAPCOS is working as implementing agency on behalf of Central Coalfields Limited (CCL), Ranchi being Principal Employer. Thus, the bidder unconditionally acknowledges that the payments under the present Tender and Work Order/ Contract Agreement (if work is awarded to bidder) shall be made proportionately by WAPCOS only on back to back basis i.e., after 30 days subject to receipt of payment from CCL. The Bidder also unconditionally agree that in the event the, payment or part thereof, under the present Tender and Work Order/ Contract Agreement (if work is awarded to bidder) is not received from Central Coalfields Limited (CCL), Ranchi,

Clause No.	Description	Applicability/Modified/ Added
		then WAPCOS &/or any of its Employee/ Officer shall not be responsible to pay any amount to Bidder. The said condition shall supersede any and all other conditions of Tender and Work Order/ Contract Agreement between the parties (if work is awarded to bidder). All payments shall be released by way of e-transfer through RTGS in India directly at their Bank account by WAPCOS
Clause 7B (Added)		The intermediate/ final payment will be released on the basis of schedule of payment prescribed in the contract.
Clause 10	Materials Supplied by WAPCOS	Not Applicable
Clause 10A	Materials to be Provided by Contractor	Following Paragraph Added List of Testing Equipment to be provided by the Contractor at site lab 1. Cube Testing Machine along with sufficient numbers of cube moulds 2. Set of Sieves for testing of Coarse & fine aggregate along with shaker 3. Slump Cone 4. Vernier Calliper, Screw Gauge, Wire gauge 5. Weighing Balance with weights 6. Rebound Hammer 7. For testing of Design Mix Concrete at site, necessary testing equipment and facility (as per BIS) shall be made available by Contractor as and when required by Engineer-In-Charge or his authorized representative and nothing extra shall be paid on account of this. (Note: The listed equipment / instruments will be installed at his own cost by Contractor in laboratory room which to be constructed by the Contractor at his own cost).
Clause 10 B(i)	Secured Advance on Non-Perishable Materials	Applicable 75% of the assessed value of any material which are non- Perishable in the opinion of the Engineer-in-Charge Recovery of Secured Advance: Recovery shall be made by the deduction from the contractors bills commencing after first 10% of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is

Clause No.	Description	Applicability/Modified/ Added
		recovered by the time 80% of the gross value of the contract is executed and paid.
Clause 10 B(ii)	Mobilization Advance	Applicable 10% of the tendered value on submission of Bank Guarantee Bond from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the contract period. The mobilization advance bear simple interest at the rate of 10 per cent per annum and shall be calculated from the date of payment to the date of recovery. (It will be provided to the contractor if the same is provided by CCL to WAPCOS) Note: Above 10% Mobilization Advance shall be paid in two instalments, each of five per cent. The first installment shall be paid on commencement of the work at site. The second instalment shall be paid after achieved a financial progress of 10 (ten) per cent of the contract price.
New Clause 10 B(iv)	Plant Machinery & Shuttering Material Advance	Not Applicable
Clause 10 B(iii)	Recovery of Mobilization advance	Applicable The mobilization advance shall be recovered @25% of the value of work done from each running account bill till complete mobilization advance is recovered.
Clause 10 CC	Payment due to Increase / Decrease in Prices / Wages (Excluding Materials covered under Clause 10 CA) after Receipt of Tender for Works	Not Applicable
Clause 12	Deviations / Variations Extent and Pricing	Applicability of Variation/ Deviation Clauses - Area as mentioned scope of work are approximate and includes the ground floor area/ area as required to be provided in each amenity block. - If there is any increase/decrease in variation upto 5% +/- of built-up area of the floor plan of each building/feature, there will not be any additional cost payable on this account.

Clause No.	Description	Applicability/Modified/ Added								
		The variation clauses shall only be applicable if variation in area/ length of particular amenity/boundary wall is more than 5%.								
	Clause 12.1	Not applicable								
	Clause 12.2(a) with Delhi Schedule of Rates 2021 (DSR 2021) for civil & fire fighting works, DSR 2022 for E&M works and DSR 2020 for Horticulture works	Added as “In the case of extra item(s) (items that are completely new) In case the extra item being the Scheduled Item, in accordance with DSR, the rates for various works shall be determined as per Table mentioned below and shall be paid as approved by WAPCOS. <table><tr><th>Type of work</th><th>Applicable Rates</th></tr><tr><td>Civil, Fire-Fighting Work</td><td>DSR 2021 + Cost Index @ 18%</td></tr><tr><td>E&M</td><td>DSR 2022 + Cost Index @ 18%</td></tr><tr><td>Horticulture & Landscape</td><td>DSR 2020 + Cost Index @ 18%</td></tr></table> • In case the Non-scheduled item (Not available in above mentioned DSRs), the contractor shall submit proper rate analysis on the basis of the market rates in accordance with the respective DARs and shall be paid as per rate approved by WAPCOS. GST shall be paid as per Government of India Prevailing Norms.	Type of work	Applicable Rates	Civil, Fire-Fighting Work	DSR 2021 + Cost Index @ 18%	E&M	DSR 2022 + Cost Index @ 18%	Horticulture & Landscape	DSR 2020 + Cost Index @ 18%
Type of work	Applicable Rates									
Civil, Fire-Fighting Work	DSR 2021 + Cost Index @ 18%									
E&M	DSR 2022 + Cost Index @ 18%									
Horticulture & Landscape	DSR 2020 + Cost Index @ 18%									
	Clause 12.2(b)	Modified as “The specification/items mentioned in Tender/BoQ may be substituted as per the requirement of Owner/ WAPCOS. • In case the substituted item being the Scheduled Item, in accordance with DSR, the rates for various works shall be determined as per Table mentioned below and shall be paid as approved by WAPCOS. <table><tr><th>Type of work</th><th>Applicable Rates</th></tr><tr><td>Civil, Fire-Fighting Work</td><td>DSR 2021+Cost Index @ 18%</td></tr><tr><td>E&M</td><td>DSR 2022 + Cost Index @ 18%</td></tr><tr><td>Horticulture & Landscape</td><td>DSR 2020 + Cost Index @ 18%</td></tr></table> • In case the Non-scheduled item (Not available in above mentioned DSRs), the contractor shall submit proper rate analysis on the basis of the market rates in accordance with the respective DARs and shall be paid as	Type of work	Applicable Rates	Civil, Fire-Fighting Work	DSR 2021+Cost Index @ 18%	E&M	DSR 2022 + Cost Index @ 18%	Horticulture & Landscape	DSR 2020 + Cost Index @ 18%
Type of work	Applicable Rates									
Civil, Fire-Fighting Work	DSR 2021+Cost Index @ 18%									
E&M	DSR 2022 + Cost Index @ 18%									
Horticulture & Landscape	DSR 2020 + Cost Index @ 18%									

Clause No.	Description	Applicability/Modified/ Added								
		per rate approved by WAPCOS. GST shall be paid as per Government of India Prevailing Norms.								
	Clause 12.2(c) i. Deviation Limit beyond which clauses 12.2 (c) shall apply for all items other than foundation work (except earthwork) as mentioned in clause 12.5 ii. Deviation limit beyond which clause 12.2 (c) shall apply for foundation work (except earth work) iii. Deviation limit for items in earth work as per the Provision in DSR.	Project & Original Works 40% 40% 100% Modified as “In the case of deviated item(s) beyond above limit: - In case the deviated item being the Scheduled Item, in accordance with DSR, the rates for various works shall be determined as per Table mentioned below and shall be paid as approved by WAPCOS. <table><tr><td>Type of work</td><td>Applicable Rates</td></tr><tr><td>Civil, Fire-Fighting Work</td><td>DSR 2021 + Cost Index @ 18%</td></tr><tr><td>E&M</td><td>DSR 2022 + Cost Index @ 18%</td></tr><tr><td>Horticulture & Landscape</td><td>DSR 2020 + Cost Index @ 18%</td></tr></table> - In case the Non-scheduled item (Not available in above mentioned DSRs), the contractor shall submit proper rate analysis on the basis of the market rates in accordance with the respective DARs and shall be paid as per rate approved by WAPCOS. GST shall be paid as per Government of India Prevailing Norms.	Type of work	Applicable Rates	Civil, Fire-Fighting Work	DSR 2021 + Cost Index @ 18%	E&M	DSR 2022 + Cost Index @ 18%	Horticulture & Landscape	DSR 2020 + Cost Index @ 18%
Type of work	Applicable Rates									
Civil, Fire-Fighting Work	DSR 2021 + Cost Index @ 18%									
E&M	DSR 2022 + Cost Index @ 18%									
Horticulture & Landscape	DSR 2020 + Cost Index @ 18%									
	Clause 12.3 & Clause 12.5	Not Applicable								
Clause 17	Contractor liable for Damages, Defects during Defect Liability Period Defect Liability Period and	Applicable Added: Five years from the date of successful								

Clause No.	Description	Applicability/Modified/ Added
	Comprehensive Operation & maintenance period	completion of each component of the project with all satisfaction & acceptance of WAPCOS /CCL along with submission of all the required documents i.e. As- built drawings (minimum 5 sets), Inventory list, guarantee / warranty bonds, certificates & invoices of equipment, lock and key of each room and NoCs form various Departments. Contractor shall carryout operation and comprehensive maintenance of project/ Defects Liability for a period of 5 years. The Engineer-in-Charge or Engineer/Officer appointed by WAPCOS or his duly authorized representative who shall direct, supervise and be in charge of the work for the purpose of this Contract shall supervise the work upto end of defects liability period/ Operation & Maintenance period. Contractor shall handover the project to CCL after completion of Comprehensive Operation Maintenance Period of 5 years.
Clause 19L	Contribution of EPF and ESI	NOT APPLICABLE
Clause 24	Life Cycle Cost	NOT APPLICABLE
Clause 25	Settlement of Disputes and Arbitration	<u>Modified as:</u> Any dispute, controversy or claims arising out of or relating to this Contract Agreement (Agreement that will be signed between WAPCOS and Bidder, if work is awarded to bidder), or the breach termination or invalidity thereof shall be settled through following mechanism: a) Firstly, the aggrieved party shall write a letter to the other party detailing its grievances and calling upon the other party to amicably resolve the dispute by convening a joint meeting. Accordingly, the parties as per their convenience shall jointly convene the said meeting(s), wherein minutes of the said meeting(s) shall be prepared and countersigned by all the parties it is mandatory to prepare minutes of meeting(s) and to be countersigned by all the parties, irrespective of the outcome of the said

Clause No.	Description	Applicability/Modified/ Added
		meeting(s). b) In the event the parties are unable to reach on any settlement in the said meeting(s), then the aggrieved party shall mandatory resort to pre-litigation mediation mechanism with Delhi High Court Mediation Cell, New Delhi. c) It is only upon failure of the pre-litigation mediation mechanism with Delhi High Court Mediation Cell then the aggrieved party shall resort to resolution of disputes through arbitration of a Sole Arbitrator. The appointing authority of Sole Arbitrator is CMD, WAPCOS Limited, to which neither of the parties have any objection nor they shall ever object. d) Subject to the parties agreeing otherwise, the Arbitration proceedings shall be conducted in accordance with the provisions of the Indian Arbitration and Conciliation Act, 1996 (amended as on date). e) It is also acknowledged and accepted that the Employer is only working as intermediary between the Contractor and the Principal Employer/Owner/Client, thus in the event, any dispute arises under the present agreement and referred to Arbitration for adjudication, then subject to corresponding clause in the Contract between Principal Employer/Owner/Client & the Employer, Principal Employer/Owner/Client shall also be made party to the said Arbitration proceedings. Also, the award including costs if any passed against the Employer and costs incurred in the proceedings shall be the sole responsibility of Principal Employer/Owner/Client. The said clause if found inapplicable, even then the other terms of the Arbitration Clause shall survive and shall be acted upon. f) The place/seat of arbitration shall be Delhi and any award whether interim or final, shall be made, and shall be deemed for all purposes between the parties to be made, in Delhi. The arbitral procedure shall be conducted in English language and any award or awards shall be rendered in English. The procedural law of the arbitration shall be Indian Law. The award of the arbitrator shall be final and conclusive and

Clause No.	Description	Applicability/Modified/ Added				
		binding upon the Parties. g) The Contract and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the laws of India and the Parties submit to sole & exclusive jurisdiction of courts at Delhi."				
Clause 27	Lumpsum Provisions in Tender	Not Applicable				
Clause 29A	Lien in respect of claims in other contracts	Not Applicable				
Clause 29B	Employment of coal mining or controlled area labour not permissible	Not Applicable				
Clause 30A	Water supply	Not Applicable				
Clause 30 B	Alternate water arrangements	Not Applicable				
Clause 32	Minimum Requirement of Technical Representative(s) during Construction period					
	S.No.	Requirement of Technical Staff		Minimum Experience (Yrs)	Designation of Technical Staff	Recovery of made for
		Minimum Qualification	Numbers			
	1.	B. Tech (Civil)	1	10 (Having Experience of one similar nature of work)	Project Manager	35,000 per month
	2.	B. Tech (Electrical)	1	3	Electrical Engineer (on requirement basis)	35,000 per month
	3.	Horticulturist/ Agriculture Engineer	1	10	Team Lead	35,000 per month
	Minimum Requirement Staff during Operation & Maintenance period					
	1	Security Guard				24 hr
	2	Cleaning and sweeping / Mali				2 nos per day
	3	Other personnel as per requirement (Plumber/ Carpenter/ electrician etc)				as per requirement
Note:						
The staff above is required to be deployed at site & should have experience in execution of at least one similar work.						

Clause No.	Description	Applicability/Modified/ Added		
	Above proposed deduction shall be made only if project execution is delayed by the contractor without valid justification at the discretion of WAPCOS. <i>“The contractor/agency may give preference to Local people, Project Affected persons of CCL local NGOs and FPOs /Farmer Producer Organizations/ during the construction work as well as during Operations and maintenance period.”</i>			
Additional Clause-1				
short fall Performance Indicates & Damages payable by the Contractor				
Performance Area		Measurement Key	Curing/Time period	Damages for shortfall (in Rs)
1	Work Plan (Detailed Plan showing completion work in MS Project/ Primavera)	Submission of work plan through email/hard copy	15 Days	5000/day
2	Deployment of manpower (CVs of manpower should be submitted to WAPCOS for information)	Site attendance register & Physical verification by Project In-Charge	7 Days	Clause 32(i) of SCC
3	Monthly Progress report (MPR to be submitted every 10 th of the next month as per the given format in NIT or by Project In-Charge.	To be submit through email & Hard copy as per the given format	1 week	5000/ day
4	Non adherence to timeline as specified in scope of work & not following the sequence as indicated		3 Days	10000/ day
Clause 34		Not Applicable		
Clause 38	THEORETICAL CONSUMPTION OF MATERIAL	Not Applicable		
Clause 39	Compensation During Warlike Situation	Not Applicable		
Clause 41	RELEASE OF SECURITY DEPOSIT AFTER LABOUR CLEARANCE	Not Applicable		
Clause 44 -1.	Payment Schedule	Modified as” The Payment Schedule includes a schedule setting out each Milestone Event to be achieved for the Works. The scope of the work is given section VII of Vol I and payment		

Clause No.	Description	Applicability/Modified/ Added
		schedule is appended with VOL II of this tender i.e., Financial Bid”

2.0 ADDITIONAL CONDITIONS

1. The Contractor shall be responsible for consequential effects arising out during the inspection done by the Chief Technical Examiner Cell, Central Vigilance Commission or Committee constituted by the CCL or construction site visiting team of CCL or by the Building Works Committee or third party authorized by WAPCOS or any Statuary Committee or by any duly authorized representative of WAPCOS, during the progress or any time after the construction and development of project up to the defect liability period, and will take appropriate action for rectification of defective work and modifications as suggested by the above teams/ group/ individual. Rectification of defective works or replacement of sub-standard materials or articles or modifications, as pointed out by the Chief Technical Cell, Central Vigilance Commission, committee constituted by CCL, construction site visiting team of CCL, Building Works Committee or authorized representative of WAPCOS or third party authorized by WAPCOS or any Statuary Committee, will be carried out or replaced/ modified by the Contractor at his own risk and cost.
2. The contractor shall get the Construction water, tested periodically from outside approved laboratory (within 2 months or early) and daily in site laboratory with regard to its suitability of use in the works and get written approval from the Engineer in charge before he proceeds with the use of same of execution of works. The suitable water for construction shall be arranged by Contractor at his own cost and nothing extra shall be paid to the contractor on this account.
3. The contractor shall provide fully equipped office for Engineer- in-charge/ site engineer/ along with facility of 24 hours electricity & electric fixtures (including ACs) and drinking water supply, sanitary facilities, furniture and desktop computers of latest version along with printers and internet connection at construction site and vehicle for supervision and any other miscellaneous requirement as directed by Engineer-in-charge for finalizing immediate technical solutions/decisions on the site, so that the work progress may not be hampered. An amount equal to 1% of the gross amount of running account bills and final bill will be deducted, if above facilities are not provided at site.
4. If any official of contractor is not following the directions of WAPCOS in the best interest of work, in that case, WAPCOS has full authority to get replaced that official from site of work with prior notice.
5. Contractor will ensure that work will be executed at site as per the rules and regulations of GRIHA council and maintain all rules and safety, environmental protocols.
6. **Handing Over of the Project:** Contractor will hand over the project to Owner /Client after successful completion of each component of the project along with submission of all the required documents i.e. As- built drawings, Inventory list, guarantee / warranty bonds, certificates & invoices of equipment, lock and key of each room and NoCs form various Departments with complete satisfaction and acceptance by WAPCOS/CCL. Contractor shall provide necessary Completion Certificate/NOC from all local Government/ Statuary Authorities including Fire, Forest, Electrical, Environment, Lift, DG Set, Complete inventory list, duly signed as-build drawings, required before handing over the project to the WAPCOS. The partial handing over of works components shall not be considered. Defect Liability period of *five (5) years will start from the date of successful completion of each component of the project and handing over to CCL/WAPCOS with all satisfaction & acceptance along with submission of all the required documents i.e. As- built drawings, Inventory list,*

guarantee / warranty bonds, certificates & invoices of equipment, lock and key of each room and NoCs form various Departments.

7. All the modifications and any additional works (basic requirement after use of premises by user) suggested by client/WAPCOS at the time of handing over of the project and after occupancy of premises by client during Defect Liability Period must be taken up by contractor without any disputes and without any extra charge.
8. The contractor shall deploy the resources at site to start the construction after clearance from the Owner of the project and subsequent written approval from WAPCOS. No claim shall be entertained for idle labour, idle machinery, idle technical / non-technical staff, idle T&P if any, due to delay in start of the works.
9. Contractor shall deploy adequate technical manpower / expert of each relevant fields as per the scope and requirement of work during execution of work at site which are mandatory as per the standard guidelines.
10. If any dispute/ hindrance arises during construction due to any reason whatsoever, the contractor is not liable for any financial claim or damages due to such circumstances.
11. All Reinforced Cement Concrete work shall be design mix concrete of specified grade and initial design mix shall be carried out from the Govt. approved Laboratory/NABL accredited lab/ NIT/IIT.
12. The Contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, videography, slides, etc. nothing extra shall be payable to the Contractor on this account.
13. Quoted amount by contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation shall be applicable on this contract in any circumstances.
14. The contractor shall make his own arrangements for obtaining electric connection and water Connection/arrangement. The water charges and electricity charges as charged by Local Authorities will be paid by the Contractor. No dispute in this regard shall be entertained.
15. All the rules and regulations about the Labour working at site and mandatory as per the State Government and Central Government departments will be followed by the contractor. If any issue arises in this regard will be resolved by the contractor. Contractor is liable to extend the benefits as provided under the various statutory and labour laws and other relevant applicable laws to its workforce. EPF/ESI and other labour laws being followed by State/Central Government norms and further amendments time to time would be followed by contractor. WAPCOS will not be a party for the issues related to EPF/ESI. If any type of the miss-happening during the execution of the project (i.e. Injury/Mobilization/Loss/Theft etc.) & the responsibility of skilled and un-skilled labor or any legal matter involved in this matter in the concerned jurisdiction will be borne by Contractor only.
16. The Contractor shall dispose of all the dismantled materials, debris, garbage, waste outside of the campus of the works at his own cost and provide clear and clean site at the time of handing over the works
17. Some restrictions may be imposed by the security staff etc. on the working and for movement for labour materials etc. The contractor shall be bound to follow all such restrictions / instructions and nothing extra shall be payable on this account.

18. The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignment, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the contractor at his own cost to the instructions and satisfaction of the Engineer-in-Charge.
19. The offer quoted by the contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark, spot levels, construction of all safety and protection devices, barriers, earth embankments, preparatory works, all testing of materials working during monsoon, working at all depths, height and locations etc. unless specified in the schedule of quantities.
20. Royalty at the prevailing rates wherever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand and bajri etc. Or any other material collected by him for the work direct to revenue authorities and nothing extra shall be paid by the department for the same.
21. The contractor shall provide at his own cost suitable weighing, surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.
22. The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rule and regulations and pay all fees and charges which he may be liable.
23. The contractor shall give a performance test of the entire installation (s) as per standing specification before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test. Contractor shall obtain the certificate of fitness from competent authority prior to its operation.
24. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been in-built in the items and nothing extra shall be payable (or) extra cement considered in consumption on this account.
25. Samples of various materials required for testing shall be provided free of charges by the contractor. Testing charges, if any, unless otherwise provided shall be borne by the Contractor. All other expenditure required to be incurred for taking the samples, conveyance, packing etc. shall be borne by the contractor himself.
26. The contractor shall have to make approaches road to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-charge. Nothing extra shall be paid on this account.
27. No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and work for which the payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P, Machinery brought to the site by him.
28. The terms machine batched, machine mixed and machine vibrated concrete used elsewhere in agreement shall mean the concrete produced in concrete batching and mixing plant and if necessary transported by transit concrete mixers, placed in position by the concrete pumps, tower crane and vibrated by surface vibrator /needle vibrator / plate vibrator, as the case may be to achieve required strength and

durability.

29. Wherever work is specified to be done or material procured through specialized agencies, their names shall be got approved well in advance from Engineer in charge. Failure to do so shall not justify delay in execution of work. It is suggested that immediately after award of work, contractor should negotiate with concerned specialist agencies and send their names for approval to Engineer in charge. Any material procured without prior approval of Engineer in charge in writing is liable to be rejected. Engineer in charge reserves right to get the materials tested in laboratories of his choice before final acceptance. Non standard materials shall not be accepted.
30. The construction joints shall be provided in predetermined locations only as decided by Engineer in charge. The cost of shuttering for these construction joints shall be included in item of Concrete work / RCC work and nothing extra shall be payable on this account to the contractor.
31. The gradation of fine sand to be used in plaster work, shall be strictly as per standard specification- The plastered surface shall be fairly smooth without any undulation of any kind for applying paint/white wash.
32. No chase cutting/dismantling of plaster/RCC/CC shall be allowed, so contractor has to execute the electrical work accordingly.
33. The contractor shall invariably prepare the samples of finishing items i.e. flooring of different types, external & internal finishing i/c colour scheme of paint, tiles in dado, flooring in platforms & staircase, water supply & sanitary fittings and any other item as per direction of Engineer-in-charge. The contractor shall proceed with further finishing items only after getting the samples of these items approved in writing from Engineer-in-charge.
34. The contractor shall establish a fully equipped site laboratory and shall provide electrically operated cube crushing and testing machine appliance at site, such as weighing, scale, graduated cylinder, standard sieves, thermometer, slump cones etc. all relevant tests for BMC / RMC as per prescribed IS codes in order to enable the Engineer in charge to conduct field tests to ensure that the quality is consistent with the prescribed specifications and nothing extra shall be paid on this account.
35. The contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case, he or his authorized representative is not present or does not associate himself, the results or such tests and consequences thereon shall be binding on the contractor.
36. The material shall conform to the quality and make as per attached list. However for the items not appearing in the list preference shall be given to those articles which bear ISI certification marks. In case articles bearing ISI certification marks are not available the quality of sample brought by the Contractor shall be judged by the standard laid down in the relevant ISI specification. All materials and articles brought by the contractor to the site for use shall conform to the samples approved, which shall be preserved till the completion of the work. Notwithstanding the case of materials of "Preferred Make" as given provisions of Clause 10A of the General Conditions of Contract for Central PWD works shall be applicable on the materials of "Preferred Make" also.
37. It must be ensure that all materials to be used in work bear BIS certification mark. In cases where BIS certification system is available for a particular material/product but

not even a single producer has so far approached BIS for certification the material can be used subject to the condition that it should confirm to standard specification and relevant BIS codes. In such case written approval of the Engineer-In-Charge may be obtained before use of such material in the work.

38. The final approval of the brand to be used shall be as per the direction of Engineer-in-Charge. The brand used shall be one of the brands in case specified in the list of preferred make / materials.

39. **Special conditions for Cement**

The contractor shall procure 43 grade Ordinary Portland Cement (conforming to IS : 8112), Portland Pozzolona Cement (confirming to IS : 1489 : Part –I) as required in the work, from reputed manufacturers of cement as per the list of approved makes or from any other reputed cement manufacturer, having a production capacity not less than one million tones per annum as approved by WAPCOS. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacture(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufactures, given by the tenderer, fully or partially. The cement brought to the site for execution of work shall be in bags bearing manufacturer's name & ISI marking. Weight of cement in each bag shall be 50 kg. Samples of cement arranged by the contractor shall be taken by the Engineer- in-Charge and got tested in accordance with provisions of relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and it shall be removed from the site by the contractor at his own cost within 7 days of written order from the Engineer-in-Charge to do so.

40. **Special Conditions for Steel:-**

The contractor shall procure TMT bars of Fe500/Fe500D/Fe550/Fe550D grade (the grade to be procured is to be specified) from primary steel producers as per the list of approved makes or any other producer as approved by WAPCOS who are using iron ore as the basic raw material / input and having crude steel capacity of 2.0 Million tonnes per annum and above.

41. **Removal of rejected/sub-standard materials.**

The following procedure shall be followed for the removal of rejected/sub-standard materials from the site of work:

- (i) Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the Site Order Book under the signature of the Engineer-In-Charge, giving the approximate quantity of such materials.
- (ii) As soon as the material is removed, a certificate to that effect shall be recorded by the Engineer-In-Charge against the original entry, giving, the date of removal and mode of removal, i.e., whether by truck, carts, or by manual labour. If the removal is by truck, the registration number of the truck should be recorded.
- (iii) When it is not possible for the Engineer-In-Charge to be present at the site of work at the time of actual removal of the rejected/sub-standard materials from the site, the required certificate should be recorded by the Authorized Representative of WAPCOS, and the Engineer-In-Charge should countersign

the certificate recorded by the Authorized Representative.

42. In case of works where a ready mix concrete (RMC) is stipulated to be used from an approved source/manufacture, cement register need not be maintained. However, the computerized dispatch slips that are sent with each dispatch of RMC shall be kept as record.
43. If the work is carried out in more than one shift or during night, no claim on this account shall be entertained. The contractor has to take permission from the police & local authorities etc. if required for work during night hours. No claim / hindrance on this account shall be considered if work is not allowed during night time. The requisite supervision shall be made available by the WAPCOS along with necessary issue of material under joint custody.
44. Contractor should hand over the warranty of the specialized items to the WAPCOS.
45. Contractor shall submit all the Guarantee/ Warranty bond for the water proofing for 10 years of service warranty and Anti- Termite Treatment works for 5 years of service warranty.
46. The contractor is required to deploy resources as per availability of site. However, no claim will be entertained for idle labour, idle machinery, idle technical/no-technical staff, idle T&P etc.
47. Contractor shall not divert any advance payments or part thereof for any work other than that needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e. mobilization advance, secured advance against materials brought at site, secured advance against plant & machinery and/or for work done during interim stages, etc.) are required to be re-invested in the contracted work to ensure advance availability of resources in terms of materials, labour, plant & machinery needed for required pace of progress for timely completion of work.
48. In case of any inconsistency between clauses, the clause favorable/ beneficiary to the project will prevail which will be decided by the owner and WAPCOS

3.0 PROVISION FOR REVENUE FOR OPERATION AND MAINTENANCE

Contractor has to undertake operation and maintenance of this project for 5 years after completion. It is expected that he will undertake and responsible for following activities

- (i) Normal watch and ward of the premises
- (ii) Daily clearing of premises, including sweeping and wiping floors, dusting, either manually or through sweeping machines.
- (iii) Maintenance of toilet blocks, cleaning, disinfecting the floors of rest rooms, keep the toilet blocks spotlessly clean and free from foul odors round the clock
- (iv) Maintain the bulbs, fans and other electrical items provided in the premises. Replacing fuse bulb and repair electrical gadgets etc.,
- (v) Pay the electrical and water supply bills and coordinate with the utility authorities
- (vi) Upkeep and repair of Solar Power plant including operation & maintenance
- (vii) Civil / Electrical maintenance of premises including periodical painting (at least once in 5 years) to maintain a neat and clean appearance of the premises
- (viii) Management of waste produced in Ecopark & FRP Bio-digester toilets and septic tank.
- (ix) All other activities for an effective housekeeping
- (x) Maintenance of all Gardens, Parks, Plantations/ Horticultural works
- (xi) Making the Ecopark self-sustainable by 4th year of operation.
- (xii) Operation & maintenance of solar power plant
- (xiii) Operation & maintenance of DG set including fuel charges
- (xiv) Contractor shall provide saplings of flowers, shrubs etc.to all areas of CCL which are to be used for beautification of office complex, guest houses, parks, rest houses etc. 50% of the total saplings produced by current Eco-park shall be supplied to CCL free of cost.
- (xv) Provide audited reports/accounts in support of self-sustainability on yearly basis.
- (xvi) Contractor shall arrange Agricultural workshops/ Trainings to Local Farmers (As per the instructions of WAPCOS/CCL)
 - Educate and propagate the agricultural technical know-how among the local farmers for their benefits.
 - Organize technical workshops for Farmers and cover following aspects but not limited to Choose the Right Tools and Equipment
 - Best agricultural practices
 - Crop Rotation
 - Build their skills in farm management
 - Improve the local economy
 - Any other aspect as suggested by WAPCOS/CCL
 - The frequency and duration of Technical Propagation workshops shall be decided in discussion with WAPCOS/CCL

The contractor shall collect revenue from following amenities & farm produce and the same shall be deposited into a dedicated account opened by contractor to meet operational expenses of eco-park, the account shall be audited to check for self-sustainability of Eco-park.

A : Revenue from Rent

S.No.	Description	Nos
1	Cafeteria	1.00
2	Souvenir Shop - 2 Nos.	2.00
3	Food Kiosk with Outdoor Seating	1.00

B : Revenue from Produce

S.No.	Description
1	Agri-Land - Lemon Grass Farming
2	Agri-Land - Herbal Farming
3	Agri-Land - Vegetable Farming
4	Agri-Land - Sunflower Farming
<u>Orchard</u>	
1	Guava
2	Tamarind (IMLI)
3	Mango
4	Banana

The ultimate aim of project is to make ecopark self-sustainable by 4th year of operation of Ecopark the revenue collected from Ecopark should be able to meet the operational cost of ecopark. The contractor can identify additional sources of income and the same can only be implemented in discussion with Engineer in Charge.

The following Manpower should be deployed during Operation Period of the infrastructure (5 Years).

Sl. No.	Manpower	Nos. (minimum requirement)
1	Security Guard	1
2	Cleaning and sweeping / Mali	2
3	Other personnel as per requirement (Plumber/ Carpenter/ electrician etc..)	2

Note:

The salaries for staff should be paid as per applicable labour regulations

Key Performance Indicators (KPI) & Damages Payable by Contractor for Shortfall of KPI

#	Performance Area	Measurement of Key Performance	Cure Period	Damages for Shortfall
1	Non-Maintenance of all Gardens, Parks, Plantations	Through physical verification by IE	15 days	0.5% of Performance Security per day
2	Inadequate security or trained marshals/ Manpower deployment in the project area, help-desk etc. (non-compliance with requirement mentioned in the Contract Agreement)	Through physical verification by IE	5 days	0.1% of Performance Security per day
3	Signage's and notice boards are not properly placed and are un-clear and illegible	Through physical verification by IE	1 day	Rs.3,000 per day
4	Non-Maintenance of STP system as per the requirement	Through physical verification by IE	1 day	Rs. 5,000 per day
5	Non- Operation / Maintenance of Restaurant	Through physical verification by IE	5 days	Rs.3,000 per day
6	Not utilizing the space allocated for production of various fruits & farm produces	Through physical verification by IE	5 Days	Rs. 500 per day
7	For Self -Sustainable Period: Contractor will have to make the Eco-park self-sustainable after expiry of construction period of 9 months and maintenance period of 1460 days (4 years). In case, contractor fails to achieve the self-sustainability,	Audited reports/accounts	NA	A sum calculated as difference between annual expenditure incurred and annual revenue generated for the self-sustainable period of 365 days (12 months) or As decided by Engineer In charge (whichever is less)

Note:

- 1) If the contractor, during the period of operation and maintenance, fails to operate and maintain the facility to the satisfaction of WAPCOS / CCL, or fails to attend the rectification / restoration of work executed, WAPCOS reserves its rights to get the maintenance done through another agency and recovery the extra cost from Contractor.

SECTION – V

ANNEXURES

SECTION - V: ANNEXURES

ANNEXURE - I : FORMAT FOR PERFORMANCE SECURITY/ ADDITIONAL PERFORMANCE GUARANTEE

ANNEXURE - II : FORMAT FOR ADVANCE PAYMENT BANK GUARANTEE

ANNEXURE - III: FORMAT FOR INDENTURE FOR SECURED ADVANCES

ANNEXURE - IV: FORMAT FOR SEEKING EXTENSION OF TIME

ANNEXURE - V : FORMAT FOR GUARANTEE BONDS / AFFIDAVIT FOR WORK

ANNEXURE - VI: FORMAT FOR GUARANTEE BOND FOR WATER PROOFING TREATMENT

ANNEXURE - VII : FORMAT FOR GUARANTEE BONDS FOR ANTI-TERMITE TREATMENT

ANNEXURE - VIII: SAFETY CODES

ANNEXURE - IX : MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS

ANNEXURE - X: CONTRACTOR's LABOUR REGULATIONS

ANNEXURE – XI : BANK GUARANTEE FORMAT FOR EMD

**ANNEXURE – I: FORM OF PERFORMANCE GUARANTEE/ ADDITIONAL
PERFORMANCE GUARANTEE**

WAPCOS Limited,
76-C, Sector 18, Institutional Area
Gurgaon, Haryana-122015.

(Address Should not be changed while submitting/issuing the PBG, irrespective of correspondence address of Tender Inviting Authority/ Project In charge)

In consideration of _____ (Employer's name) (hereinafter referred to as "the Employer") which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to _____ (Contractor's name & address) (hereinafter referred to as "the Contractor" which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) a contract, by issue of Employer's Notification of Award No. _____ dt. _____ and the same having been unequivocally accepted by the Contractor, resulting into a contract valued at Rs. _____ (Rupees _____ only) for _____ (name of work) (hereinafter called "the contract") and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire contract equivalent to Rs. _____ (Rupees _____ only) (3 % of the said value of the Contract to the Employer).

We, _____ (name & address of bank) (hereinafter referred to as "the Bank" which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer, on demand any or, all monies payable by the Contractor to the extent of Rs. _____ (Rupees _____ only) as aforesaid at any time upto _____ without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor or court. Any such demand made by the Employer on the bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Employer and further agrees that the guarantee herein contained shall continue to be enforceable till the Employer discharges this guarantee.

We the said Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the Employer certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Contractor and accordingly discharges the guarantee.

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from, time to time to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with

reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank. The guarantee shall not be affected by a change in the constitution of the bank or of the employer.

The bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

We The Said Bank do hereby declare that we have absolute and unconditional power to issue this guarantee in your favour under the Memorandum and Articles of Association or such other constitutional documents of the Bank and the undersigned have full power to execute this guarantee under the Power of Attorney / Post Approval Authorization dated _____ of the bank granted to him / us by the Bank. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the powers of the bank or its officials and the guarantee shall be deemed to have been issued as if the bank and its officials have all the powers and authorization to give this guarantee on behalf of the bank.

We the said bank do hereby certify the genuineness and appropriateness of the Stamp paper and stamp value used for issuing the guarantee. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the stamp paper or its stamp value.

We the said bank do hereby declare that our payments hereunder shall be made to you , free and clear of and without and deduction, reduction on account of any reasons including any and all present and future taxes, levies, charges of withholding whatsoever imposed or collected with respect thereto.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to Rs. _____ (Rupees _____ only) and it shall remain in force upto and including _____ and shall be extended from time to time for such period as may be desired by M/s WAPCOS Limited to whom this bank guarantee has been given.

Notwithstanding anything contained herein

- i) Our liability under this guarantee shall not exceed Rs. _____ (Rupees _____ only);
- ii) This bank guarantee shall be valid upto _____; and
- iii) our liability to make payment shall arise and we are liable to pay the guaranteed amount or any part thereof under this guarantee, only and only if you serve upon us a written claim or demand in terms of the guarantee on or before _____ **(indicate a date twelve month after validity of Guarantee)**

Dated this _____ day of _____ at New Delhi.

Note:

While issuing the PERFORMANCE GUARANTEE, address as given in this format should be used and there should be no deviation

ANNEXURE – II: FORM OF ADVANCE PAYMENT GUARANTEE

WAPCOS Limited,
76-C, Sector 18, Institutional Area
Gurgaon, Haryana-122015

(Address Should not be changed while submitting/issuing the PBG, irrespective of correspondence address of Tender Inviting Authority/ Project In charge)

In consideration of WAPCOS LTD. (hereinafter referred to as “the Employer”) which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to _____ (Contractor’s name) with its Registered /Head Office at _____ (hereinafter referred to as “the Contractor” which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) a contract, by issue of Employer’s Notification of Award No. _____ dt. _____ and the same having been unequivocally accepted by the Contractor, resulting into a contract valued _____ at _____ Rs. _____ (Rupees _____ only) for _____ (hereinafter called “the contract”) and the Employer having agreed to make an advance payment to the Contractor for performance of the above Contract amounting to Rs. _____ (Rupees _____ only) as an advance against bank guarantee to be furnished by the Contractor.

We, _____ (name & address of bank) having its Head Office at _____ (hereinafter referred to as “the Bank” which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer immediately on demand any or, all monies payable by the Contractor to the extent of Rs. _____ (Rupees _____ only) as aforesaid at any time upto _____ without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Employer on the bank shall be conclusive and binding notwithstanding any difference between the Employer and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. We agree that the Guarantee herein contained shall be irrevocable and shall continue to be enforceable till the Employer discharges this guarantee. We further agree that no change in the constitution of the Bank or of the Employer shall affect this guarantee. The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time, to vary the advance or to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank.

The bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the

Employer may have in relation to the Contractor's liabilities.

We the Said Bank do hereby declare that we have absolute and unconditional power to issue this guarantee in your favour under the Memorandum and Articles of Association or such other constitutional documents of the Bank and the undersigned have full power to execute this guarantee under the Power of Attorney/ Post Approval Authorization dated _____ of the bank granted to him / us by the Bank. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the powers of the bank or its officials and the guarantee shall be deemed to have been issued as if the bank and its officials have all the powers and authorization to give this guarantee on behalf of the bank.

We the said bank does hereby certify the genuineness and appropriateness of the Stamp paper and stamp value used for issuing the guarantee. We the said bank does hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the stamp paper or its stamp value.

We the said bank do hereby declare that our payments hereunder shall be made to you , free and clear of and without and deduction, reduction on account of any reasons including any and all present and future taxes, levies, charges of withholding whatsoever imposed or collected with respect thereto.

Notwithstanding anything contained hereinabove our liability under this guarantee is limited to Rs. _____ (Rupees _____ only) and it shall remain in force upto and including _____ and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s _____ on whose behalf this bank guarantee has been given.

Notwithstanding anything contained herein

- i) Our liability under this guarantee shall not exceed Rs. _____ (Rupees _____ only);
- ii) This bank guarantee shall be valid upto _____ and
- iii) our liability to make payment shall arise and we are liable to pay the guaranteed amount or any part thereof under this guarantee, only and only if you serve upon us a written claim or demand in terms of the guarantee on or before _____ **(indicate a date twelve months after the validity of the guarantee).**

Dated this _____ day of _____ at New Delhi.

WITNESS

(Signature)

(Name)

(Official address)

(Signature)

(Name)

(Signature)

(Name)

(Designation with bank stamp)

Attorney as Power of Attorney

No. _____ dt. _____

Note: While issuing the Advance Payment Guarantee, address as given in this format should be used and there should be no deviation

ANNEXURE – III: FORMAT FOR INDENTURE FOR SECURED ADVANCES

THIS INDENTURE made the..... day of 20..... BETWEEN (hereinafter called the Contractor which expression shall where the context so admits or implies be deemed to include his executors administrators and assigns) of the one part and the WAPCOS (hereinafter called the WAPCOS which expression shall where the context so admits or implies be deemed to include his successors in office and assigns) of the other part.

WHEREAS by an agreement dated..... (hereinafter called the said agreement) the Contractor has agreed AND WHEREAS the Contractor has applied to the WAPCOS that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS the WAPCOS has agreed to advance to the Contractor the sum of Rupees on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account Bill for the said works signed by the Contractor on and the WAPCOS has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works. Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees on or before the execution of these presents paid to the Contractor by the WAPCOS (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the Contractor doth hereby covenant and agree with the WAPCOS and declare as follows: -

- (1) That the said sum of Rupees so advanced by the WAPCOS to the Contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the Contractor in or towards expediting the execution of the said works and for no other purpose whatsoever.
- (2) That the materials detailed in the said Account of Secured Advances which have been offered to and accepted by the WAPCOS as security are absolutely the Contractor's own property and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnifies the WAPCOS against all claims to any materials in respect of which an advance has been made to him as aforesaid.
- (3) That the materials detailed in the said Account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer In charge (hereinafter called the Engineer In charge) and in the term of the said agreement.

- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer In charge or any officer authorised by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Engineer In charge.
- (5) That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Engineer In charge or an officer authorised by him on that behalf.
- (6) That the advances shall be repayable in full when or before the Contractor receives payment from the WAPCOS of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the WAPCOS will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing to the WAPCOS shall immediately on the happening of such default be repayable by the Contractor to the WAPCOS together with interest thereon at twelve per cent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs charges, damages and expenses incurred by the WAPCOS in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the WAPCOS to repay and pay the same respectively to him accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the WAPCOS of the said sum of Rupees and any further sum or sums advanced as aforesaid and all costs charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the powers contained therein if and whenever the covenant for payment and repayment herein before contained shall become enforceable and the money

owing shall not be paid in accordance therewith the WAPCOS may at any time thereafter adopt all or any of the following courses as he may deem best :-

- (a) Size and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion and the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor he is to pay same to the WAPCOS on demand.
 - b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the WAPCOS under these presents and pay over the surplus (if any) to the Contractor.
 - (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
- (9) That except in the event of such default on the part of the Contractor as aforesaid interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been herein before expressly provided for the same shall be finally resolved as per provisions of clause 25 of the contract.

In witness whereof the said and by the order and under the direction of the WAPCOS have hereunto set their respective hands the day and year first above written.

Signed, sealed and delivered by..... the said contractor in the presence of

Signature

Witness Name.....

Address

Signed by.....

by the order and direction of the WAPCOS in the presence of

Witness Name.....

Address

Signed by.....

ANNEXURE – IV: FORMAT FOR SEEKING EXTENSION OF TIME

1. Name of contractor
2. Name of work as given in the agreement
3. Agreement no
4. Estimated amount put tender
5. Date of commencement of work as per agreement
6. Period allowed for completion of work as per agreement
7. Date of completion stipulated in agreement
8. Period for which extension of time already given

letter no. and date	Extension granted	
	Months	Days
(a) 1st extension		
(b) 2nd extension		
(c) 3rd extension		
(d) 4th extension		
(e) Total extension previously given		

9. Reasons for which extension have been previously given
10. Period for which extension if applied for
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred.

Signature of Contractor

Dated

ANNEXURE – V: FORMAT FOR GUARANTEE BONDS / AFFIDAVIT FOR WORK**(On Rs. 100 non- Judicial Stamp Paper)****GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER SUPPLY AND SANITARY INSTALLATIONS, ROCK WOOL INSULATION AND POLYURETHENE FOAM**

The agreement made this ____ day of _____ 20 _____ between (Name of Contractor Firm) _____ (hereinafter called the GUARANTOR of the one part) and the WAPCOS LIMITED (hereinafter called the WAPCOS of the other part).

WHEREAS THIS agreement is supplementary to a contract. (Herein after called the Contract) dated _____ and made between the GUARANTOR OF THE ONE PART AND the WAPCOS of the other part, whereby the contractor inter alia, under look to render the work in the said contract recited structurally stable workmanship and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guarantee against faulty workmanship, finishing, manufacturing defects of materials and leakages etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, for the minimum life of ten years, to be reckoned from the date of start of Defect Liability Period prescribed in the Contract.

The decision of the Engineer-in-charge with regard to nature and cause of defects shall be final. During the period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer in charge calling upon him to rectify the defects, failing which the work shall be got done by the WAPCOS by some other contractor at the guarantor's cost and risk. The decision of the Engineer in charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach thereunder then the guarantor will indemnify the Principal and his successor against all loss, damage cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the WAPCOS the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNES WHEREOF those presents have been executed by the GUARANTOR _____ on behalf of (Name of Contractor Firm) and _____ by for and on behalf of the WAPCOS LIMITED on the day, month and year first above written.

Signed sealed and delivered by GUARANTOR in presence of :

1. _____
2. _____

signed for and on behalf of the WAPCOS Limited by _____ in the presence of:

1. _____
2. _____

ANNEXURE – VI: FORMAT FOR GUARANTEE BONDS FOR WATER PROOFING**(On Rs. 100 non- Judicial Stamp Paper)****GUARANTEE BOND TO BE EXECUTED BY THE CONTRACTOR FOR WATER PROOFING TREATMENT FOR BASEMENT / TERRACE / TOILETS**

The agreement made this ____ day of _____ 20 ____ between (Name of Contractor Firm) _____ (hereinafter called the GUARANTOR of the one part) and the WAPCOS LIMITED (hereinafter called the WAPCOS of the other part).

WHEREAS THIS agreement is supplementary to a contract. (Herein after called the Contract) dated _____ and made between the GUARANTOR OF THE ONE PART AND the WAPCOS of the other part, whereby the contractor interalia, undertook to render the structures in the said contract the work in the said contract recited completely water and leak proof.

THE GUARANTOR hereby guarantee that the water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date of start of Defect Liability Period prescribed in the Contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects. The decision of the Engineer in charge with regard to cause of leakage shall be final.

During the period of guarantee the guarantor shall make good all defects and in case of any defects being found render the structure water proof to the satisfaction of the Engineer in charge at his cost and shall commence the work for such rectification within seven days from the date of issue of notice from the Engineer in charge calling upon him to rectify the defects, failing which the work shall be got done by the WAPCOS through some other contractor at the guarantor's cost and risk. The decision of the Engineer in charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to execute the water proofing, or commits breach thereunder then the guarantor will indemnify the Principal and his successor against all loss, damage, cost of expenses or otherwise which may be incurred by him by reason of any of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement . As to the amount of loss and / or cost incurred by the WAPCOS on the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNESS WHEREOF those presents have been executed by the GUARANTOR _____ on behalf of (Name of Contractor Firm) and _____ by for and on behalf of the WAPCOS LIMITED on the day, month and year first above written.

Signed sealed and delivered by GUARANTOR in presence of :

1. _____
2. _____

SIGNED FOR AND ON BEHALF OF THE WAPCOS LIMITED BY _____ in the presence of :

1. _____
2. _____

**ANNEXURE – VII: FORMAT FOR GUARANTEE BONDS FOR ANTI-TERMITE
TREATMENT**

(On Rs. 100 non- Judicial Stamp Paper)

**GUARANTEE BOND TO BE EXECUTED BY THE CONTRACTOR FOR ANTI-TERMITE
TREATMENT**

The agreement made this ____ day of _____ 20 _____ between (Name of Contractor Firm) _____ (hereinafter called the GUARANTOR of the one part) and the WAPCOS LIMITED (hereinafter called the WAPCOS of the other part).

WHEREAS THIS agreement is supplementary to a contract. (Herein after called the Contract) dated _____ and made between the GUARANTOR OF THE ONE PART AND the WAPCOS of the other part, whereby the contractor inter alia, undertook to render the wooden work in the said contract recited completely Termite proof.

THE GUARANTOR hereby guarantee that the anti-termite treatment given by him will render the wooden works completely Termite proof and the minimum life of such Anti-Termite treatment shall be five years to be reckoned from the date completion of work as period prescribed in the contract.

During the period of guarantee the guarantor shall make good all defects and in case of any defects being found render the wooden works termite proof to the satisfaction of the Engineer in charge at his cost and shall commence the work for such rectification within seven days from the date of issue of notice from the Engineer in charge calling upon him to rectify the defects, failing which the work shall be got done by the WAPCOS through some other contractor at the guarantor's cost and risk. The decision of the Engineer in charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to execute the Anti-termite works, or commits breach thereunder then the guarantor will indemnify the Principal and his successor against all loss, damage, cost of expenses or otherwise which may be incurred by him by reason of any of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement . As to the amount of loss and / or cost incurred by the WAPCOS on the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITHNES WHEREOF those presents have been executed by the GUARANTOR _____ on behalf of (Name of Contractor Firm) and _____ by for and on behalf of the WAPCOS LIMITED on the day, month and year first above written.

Signed sealed and delivered by GUARANTOR in presence of :

1. _____
2. _____

SIGNED FOR AND ON BEHALF OF THE WAPCOS LIMITED BY _____ in the presence of :

1. _____
2. _____

ANNEXURE – VIII: SAFETY CODES

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to $1(\frac{1}{4})$ horizontal and 1 vertical).
2. Scaffolding of staging more than 3.6 m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm. (3ft.).
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. ($11\frac{1}{2}$ "") for ladder upto and including 3 m. (10 ft.) in length. For longer ladders, this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm. (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit; action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person
6. (a) Excavation and Trenching - All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100ft.) in length or fraction thereof, Ladder shall extend from bottom of the trench to at least 90 cm. (3ft.) above the surface of the ground. The side of the trenches which are 1.5 m. (5ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m. (5ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.

(b) Safety Measures for digging bore holes:-

- i. If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse;
- ii. During drilling, Sign boards should be erected near the site with the address of the drilling contractor and the Engineer in-charge of the work;
- iii. Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50m all round the point of drilling to avoid entry of people;
- iv. After drilling the borewell, a cement platform (0.50m x 0.50m x 1.20m) 0.60m above ground level and 0.60m below ground level should be constructed around the well casing;
- v. After the completion of the borewell, the contractor should cap the bore well properly by welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
- vi. After the borewell is drilled the entire site should be brought to the ground level.

7. Demolition - Before any demolition work is commenced and also during the progress of the work,

- (i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- (ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
- (iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned. The following safety equipment shall invariably be provided.

- (i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- (ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
- (iii) Those engaged in welding works shall be provided with welder's protective eye shields.
- (iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- (v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to :-

- (a) Entry for workers into the line shall not be allowed except under

supervision of the JE or any other higher officer.

- (b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
- (c) Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
- (d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
- (e) Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
- (f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
- (g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- (h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
- (i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- (j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- (k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- (l) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
- (m) The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- (n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
- (o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- (p) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.

The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-

- (a) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- (b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
- (c) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.

9. The Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use :

- (i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
- (ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of a paint in the form of spray.
- (iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
- (iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
- (v) Overall shall be worn by working painters during the whole of working period.
- (vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
- (vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man.
- (viii) WAPCOS may require, when necessary medical examination of workers.
- (ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.

10. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.

11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:-

- (i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
- (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- (ii) Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.

- (iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - (iv) In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
 13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
 14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
 15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in-Charge of the department or their representatives.
 16. Notwithstanding the above clauses from (1) to (15), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

ANNEXURE – IX: MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY CONTRACTORS

1. APPLICATION

These rules shall apply to all buildings and construction works in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contract work is in progress.

3. FIRST-AID FACILITIES

- (i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.
- (ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment:-
 - (a) For work places in which the number of contract labour employed does not exceed 50- Each first-aid box shall contain the following equipments :-
 - 1) 6 small sterilised dressings.
 - 2) 3 medium size sterilised dressings.
 - 3) 3 large size sterilised dressings.
 - 4) 3 large sterilised burn dressings.
 - 5) 1 (30 ml.) bottle containing a two per cent alcoholic solution of iodine.
 - 6) 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 - 7) 1 snakebite lancet.
 - 8) 1 (30 gms.) bottle of potassium permanganate crystals.
 - 9) 1 pair scissors.
 - 10) 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
 - 11) 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
 - 12) Ointment for burns.
 - 13) A bottle of suitable surgical antiseptic solution
 - (b) For work places in which the number of contract labour exceed 50. Each first-aid box shall contain the following equipments.
 - 1) 12 small sterilised dressings.
 - 2) 6 medium size sterilised dressings.
 - 3) 6 large size sterilised dressings.
 - 4) 6 large size sterilised burn dressings.
 - 5) 6 (15 gms.) packets sterilised cotton wool.

- 6) 6.1 (60 ml.) bottle containing a two per cent alcoholic solution iodine.
 - 7) 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label
 - 8) 1 roll of adhesive plaster.
 - 9) 1 snake bite lancet.
 - 10) 1 (30 gms.) bottle of potassium permanganate crystals.
 - 11) 1 pair scissors.
 - 12) 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes / Government of India.
 - 13) A bottle containing 100 tablets (each of 5 gms.) of aspirin.
 - 14) Ointment for burns.
 - 15) A bottle of suitable surgical antiseptic solution.
- (iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary
 - (iv) Nothing except the prescribed contents shall be kept in the First-aid box.
 - (v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
 - (vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.
 - (vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works. First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
 - (viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

- (i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- (ii) Where drinking water is obtained from an Intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- (iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.
- (iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. WASHING FACILITIES

- (i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- (ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- (iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- (i) Latrines shall be provided in every work place on the following scale namely :-
 - (a) Where female are employed, there shall be at least one latrine for every 25 females.
 - (b) Where males are employed, there shall be at least one latrine for every 25 males.
 Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 thereafter.
- (ii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- (iii) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.
- (iv) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women Only" as the case may be.
 (b) The notice shall also bear the figure of a man or of a woman, as the case may be.
- (v) There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.
- (vi) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
 (b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
- (vii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- (viii) Disposal of excreta: - Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).
- (ix) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other

conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft.) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm (6 sft) per head.

Provided that the Engineer-in-Charge may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. CRECHES

- (i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per clause 19H (ii) a,b & c.
- (ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- (iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.
- (iv) The contractor shall provide one ayaa to look after the children in the creche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- (v) The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

- (i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- (ii) The canteen shall be maintained by the contractor in an efficient manner.
- (iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- (iv) The canteen shall be sufficiently lighted at all times when any person has access to it.
- (v) The floor shall be made of smooth and impervious materials and inside walls shall be limewashed or colour washed at least once in each year.

Provided that the inside walls of the kitchen shall be lime-washed every four months.

- (vi) The premises of the canteen shall be maintained in a clean and sanitary condition.
- (vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- (viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- (ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.
- (x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sft) per diner to be accommodated as prescribed in sub-Rule 9.
- (xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.
(b) Washing places for women shall be separate and screened to secure privacy.
- (xii) Sufficient tables stools, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule 9.
- (xiii) (a) 1. There shall be provided and maintained sufficient utensils crockery, furniture and any other equipments necessary for the efficient running of the canteen.
2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
(b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
2. A service counter, if provided, shall have top of smooth and impervious material.
3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipments.
- (xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.
- (xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit, No loss' and shall be conspicuously displayed in the canteen.
- (xvi) In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely:-
(a) The rent of land and building.
(b) The depreciation and maintenance charges for the building and equipment provided for the canteen.
(c) The cost of purchase, repairs and replacement of equipment including furniture, crockery, cutlery and utensils.
(d) The water charges and other charges incurred for lighting and ventilation

- (e) The interest and amounts spent on the provision and maintenance of equipment provided for the canteen.
- (xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.

11. The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

12. AMENDMENTS

Government may, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

ANNEXURE - X: CONTRACTOR'S LABOUR REGULATIONS

1. SHORT TITLE

These regulations may be called the C.P.W.D./PWD (DA) Contractors Labour Regulations.

2. DEFINITIONS

- (i) Workman means any person employed by C.P.W.D./PWD (DA) or its contractor directly or indirectly through a subcontractor with or without the knowledge of the Central Public Works Department/PWD (DA) to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person :-
 - (a) Who is employed mainly in a managerial or administrative capacity : or
 - (b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature: or
 - (c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.

No person below the age of 14 years shall be employed to act as a workman.

- (ii) Fair Wages means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.
 - (iii) Contractors shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.
 - (iv) Wages shall have the same meaning as defined in the Payment of Wages Act.
- ### **3.**
- (i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
 - (ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.
 - (iii)
 - (a) Every worker shall be given a weekly holiday normally on a Sunday, in provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.
 - (b) Where the minimum wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to

the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

- (c) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

4. **DISPLAY OF NOTICE REGARDING WAGES ETC.**

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per Appendix 'III'.

5. **PAYMENT OF WAGES**

- (i) The contractor shall fix wage periods in respect of which wages shall be payable.
- (ii) No wage period shall exceed one month.
- (iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- (iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- (v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- (vi) Wages due to every worker shall be paid to him direct by contractor through Bank or ECS or online transfer to his bank account.
- (vii) All wages shall be paid through Bank or ECS or online transfer.
- (viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- (ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgment.
- (x) It shall be the duty of the contractor to ensure the disbursement of wages through bank account of labour.
- (xi) The contractor shall obtain from the Junior Engineer or any other authorised representative of the Engineer- in-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:-
- (xii) "Certified that the amount shown in column No has been paid to the workman concerned through bank account of labour on at....."

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following:-
 - (a) Fines
 - (b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - (c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.
 - (d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
 - (e) Any other deduction which the Central Government may from time to time allow.
- (ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.
 Note :- An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-X
- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- (v) No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.
- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

- (i) The contractor shall maintain a Register of persons employed on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (Appendix IV)
- (ii) The contractor shall maintain a Muster Roll register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix V).
- (iii) The contractor shall maintain a Wage Register in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (Appendix VI).
- (iv) Register of accident - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:
 - (a) Full particulars of the labourers who met with accident.
 - (b) Rate of Wages.
 - (c) Sex
 - (d) Age
 - (e) Nature of accident and cause of accident.

- (f) Time and date of accident.
 - (g) Date and time when admitted in Hospital,
 - (h) Date of discharge from the Hospital.
 - (i) Period of treatment and result of treatment.
 - (j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
 - (k) Claim required to be paid under Workmen's Compensation Act.
 - (l) Date of payment of compensation.
 - (m) Amount paid with details of the person to whom the same was paid.
 - (n) Authority by whom the compensation was assessed.
 - (o) Remarks
- (v) The contractor shall maintain a Register of Fines in the Form XII of the CL (R&A) Rules 1971 (Appendix-XI) The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-X)
 - (vi) The contractor shall maintain a Register of deductions for damage or loss in Form XX of the CL (R&A) Rules 1971 (Appendix-XII)
 - (vii) The contractor shall maintain a Register of Advances in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIII)
 - (viii) The contractor shall maintain a Register of Overtime in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIV)

6. ATTENDANCE CARD-CUM-WAGE SLIP

- (i) The contractor shall issue an Attendance card-cum-wage slip to each workman employed by him in the specimen form at (Appendix-VII)
- (ii) The card shall be valid for each wage period.
- (iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- (iv) The card shall remain in possession of the worker during the wage period under reference.
- (v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- (vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

9. EMPLOYMENT CARD

The contractor shall issue an Employment Card in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (Appendix-VIII).

10. SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a Service certificate in Form XV of the CL (R&A) Central Rules 1971 (Appendix-IX)

11. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge or Labour Officer or any other officers authorised by the Ministry of Urban Development in this behalf.

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorised by Central Government on their behalf shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Executive Engineer concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Executive Engineer after the Superintending Engineer has given his decision on such appeal.

- (i) The Executive Engineer shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer or the Superintending Engineer as the case may be.

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Superintending Engineer concerned within 30 days from the date of decision, forwarding simultaneously a copy of his appeal to the Executive Engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- (i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by:-
 - (a) An officer of a registered trade union of which he is a member.
 - (b) An officer of a federation of trade unions to which the trade union referred to in clause (a) is affiliated.
 - (c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.
- (ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :-
 - (a) An officer of an association of employers of which he is a member.
 - (b) An officer of a federation of associations of employers to which association referred to in clause (a) is affiliated.
 - (c) Where the employers is not a member of any association of employers, by an officer of association of employer connected with the industry in which the

employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.

- (iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf.

17. SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

18. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application/Interpretation or effect of those regulations the decision of the competent authority of WAPCOS concerned shall be final.

NOTE: *Appendix & others mentioned in above labour regulation from I to XIV will be as per the General Conditions of Contract-2022 – Construction works of CPWD.*

Annexure –XI**BANK GUARANTEE FORMAT FOR EMD**

WHEREAS, M/s having their Registered/Head Office at...
 (hereinafter called “the Bidder”) has submitted his Bid
 dated..... for the[hereinafter called “the Bid”]
 to M/s WAPCOS Limited (hereinafter called the Employer)

KNOW ALL PEOPLE by these presents that we (name of
 the Bank) having our head office at (hereinafter
 called “the Bank”) are bound unto Employer in the sum of for
 which payment well and truly to be made to the Employer, the Bank binds itself, its successors
 and assigns by these presents.

SEALED with the Common Seal of the said Bank this day of
2025.

THE CONDITIONS of this obligation are:

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity
 specified;

OR

(2) If the Bidder having been notified of the acceptance of his bid by
during the period of Bid Validity:

We undertake to pay to the up to the above amount upon receipt of his
 first written demand, without the Employer having to substantiate his demand, provided that in
 his demand the Bidder will note that the amount claimed by him is due to him owing to the
 occurrence of one or any of the above mentioned two conditions and specify the occurred
 condition or conditions.

This Guarantee will remain in force up to and including the date after the
 deadline for submission of Bids as is stated in the instructions to Bidders or as it may be
 extended by the notice of which extension(s) to the Bank
 is hereby waived and notice to the bidder would constitute sufficient notice to the Bank. Any
 demand in respect of this guarantee should reach the Bank not later than the above date.

Notwithstanding anything contained herein

- i. Liability under this guarantee shall not exceed
- ii. This bank guarantee shall be valid up to and;
- iii. Our liability to make payment shall arise and we are liable to pay the guaranteed amount or
 any part thereof under this guarantee only and only if you serve upon us a written claim or
 demand in terms of the guarantee on or before..... (indicate a
 period twelve months after the date of issue of Bank Guarantee)

DATE:

SIGNATURE:

(Signature of Witness)

SEAL

SECTION – VI

FORMS

SECTION – VI: FORMS

LETTER OF TRANSMITTAL

FORM-A : FINANCIAL INFORMATION

FORM-B : STRUCTURE & ORGANISATION

FORM C : NO CONVICTION CERTIFICATE

FORM D : UNDERSTANDING THE PROJECT SITE

FORM E : NO DEVIATION CERTIFICATE

FORM F : INTEGRITY PACT WITH INTEGRITY AGREEMENT

FORM G: FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES,
DISQUALIFICATION

FORM H: FORMAT FOR SOLVENCY CERTIFICATE

FORM I: DETAILS OF SIMILAR WORKS EXECUTED DURING LAST 07 YEARS
MEETING THE MINIMUM ELIGIBILITY CRITERIA

FORM – J: FORMAT FOR JOINT VENTURE AGREEMENT

FORM K: NON-BLACKLISTING CERTIFICATE

LETTER OF TRANSMITTAL*(on Bidder **Original** Letter Head)*

To
 Chief Scientist
 Ropeways Division
 WAPCOS Limited

Subject: Submission of bids for (Name of the Work/ Project)

Sir,

Having examined the details given in tender document for the above work, I/we hereby submit the relevant information.

1. I/we hereby certify that all the statement made and information supplied in the "Forms" enclosed with the tender and accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we submit the requisite certified solvency certificate and authorize the WAPCOS Ltd. to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/we also authorize WAPCOS Ltd. to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible similar works:

Name of work	Certificate from

Certificate:

It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/we shall be liable to be debarred, disqualified / cancellation of enlistment in case any information furnished by me/us found to be incorrect.

Enclosures:

Seal of bidder

Date of submission:

Signature(s) of Bidder(s).

FORM-A: FINANCIAL INFORMATION

[To be submitted on **Original** Letter Head of Bidder OR **Original** Letter Head of CA]

1. Financial Analysis: Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Years	Gross Annual turnover on construction works	Profit/Loss (After Tax)
2019-2020		
2020-2021		
2021-2022		
2022-2023		
2023-2024		

2. The following certificates are to be closed.

Tax deducted at sources, certificates from the client for the last three years.

**Signature of Chartered Accountant
(with Seal)**

**Signature of Bidder(s)
(with Seal)**

Note:- The Valid UDIN no. should be mentioned on the CA Certificate

FORM- B: STRUCTURE & ORGANISATION

S.No.	Particulars	Details Submitted by Bidder
1.	Name & address of the bidder	
2.	Telephone no./Telex no./Fax no.	
3.	Legal status of the bidder (attach copies of original document defining the legal status) (a) A proprietary firm (b) A partnership firm (c) A limited company or Corporation (d) A Company registered under company's Act 1956/2013	
4.	Particulars of registration with various Government Bodies (attach attested photocopy)	
	Organization/Place of Registration 1. 2. 3.	Registration No.
5.	Names and titles of Directors & Officers with designation to be concerned with this work.	
6.	Designation of individuals authorized to act for the organization	
7.	Has the bidder, or any constituent partner in case of partnership firm Limited Company/ Joint Venture, ever been convicted by the court of law? If so, give details.	
8.	In which field of Civil Engineering construction the bidder has specialization and interest?	
9.	Any other information considered necessary but not included above.	

Signature of Bidder(s)

FORM-C: FORMAT FOR NO-CONVICTION CERTIFICATE

[To be submitted on Bidder's **Original** Letter Head]

Subject: No-Conviction Certificate for --- (Name of the work / project)

This is to certify that _____ (Name of the organization), having registered office at _____ (Address of the registered office) has never been blacklisted or restricted to apply for any such activities by any Central / State Government Department or Court of law anywhere in the country.

This is also to certify that M/s _____ (Name of the organization), is not involved in any form of Corrupt and Fraudulent Practices in past and will never be involved in future.

Yours faithfully,

Date: _____ (Signature, name and designation of the Authorized signatory)

Place: _____ **Name and seal of Bidder**

FORM-D: FORMAT FOR UNDERSTANDING THE PROJECT SITE[To be submitted on Bidder's **Original** Letter Head]

To
 Chief Scientist
 Ropeways Division
 WAPCOS Limited

Subject: Undertaking of the Site Visit for --- (Name of the work / project)

Sir,

I/we hereby certify that I/we have examined & inspected the site & its surrounding satisfactorily, where the project is to be executed as per the scope of works. I/ We are well aware about the following

- Location of the site and accessibility to the site.
- Ground Water Level at construction site.
- Quality of ground water and availability of water surrounding to the Project.
- Termite effects at construction site & measures taken during construction of proposed site.
- Site clearance and location of matured trees.
- Topography and contouring of the land where the project is to be executed.
- Nature of the ground & sub-soil of the site as pile foundation is to be constructed
- Safety of Surrounding structures during excavation and during execution of work
- Hindrances, if any, which may arise during the execution of work

I / We hereby submit our BID considering above all facts gathered during site visit and each & every aspect have been considered in the Quoted Rates.

Yours faithfully,

Date:

(Signature, name and designation
 of the Authorized signatory)
Name and seal of Bidder

Place:

FORM-E: FORMAT FOR NO DEVIATION CERTIFICATE[To be submitted on Bidder's **Original** Letter Head]

To
 Chief Scientist
 Ropeways Division
 WAPCOS Limited

Subject: No Deviation Certificate for -----(name of Work /Project)

Dear Sir,

With reference to above this is to confirm that as per Tender conditions we have visited site before submission of our Offer and noted the job content and site condition etc. We also confirm that we have not changed/modified the above tender document and in case of observance of the same at any stage it shall be treated as null and void.

We hereby also confirm that we have not taken any deviation from Tender Clause together with other reference as enumerated in the above referred Notice Inviting Tender and we hereby convey our unconditional acceptance to all terms & conditions as stipulated in the Tender Document.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null and void.

Yours faithfully,

Date:

(Signature, name and designation
 of the Authorized signatory)

Place:

Name and seal of Bidder

FORM-F: FORMAT FOR INTEGRITY PACT[To be submitted on Bidder's **Original** Letter Head]

To,
 WAPCOS Limited,
 76-C, Sector 18,
 Institutional Area
 Gurgaon, Haryana-122015

Sub: Integrity Pact for ----- (Name of Work / Project)

Dear Sir,

I/We acknowledge that WAPCOS is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document at **Enclosure-I.**

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by WAPCOS. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, WAPCOS shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully,

Date:

(Signature, name and designation
of the Authorized signatory)

Place:

Name and seal of Bidder

ENCLOSURE-I: INTEGRITY AGREEMENT**[To be submitted on Stamp paper of At least Rs.100]**

This Integrity Agreement is made at on this day of 20.....

BETWEEN

WAPCOS Limited, New Delhi (Hereinafter referred as the '**EMPLOYER**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....(Name and Address of the Individual/ firm/ Company) through (Details of duly authorized signatory) hereinafter referred to as the "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Employer has floated the Tender (NIT No.) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for..... (Name of work) hereinafter referred to as the "Contract".

AND WHEREAS the Employer values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:-

Article 1: Commitment of the Employer

- a. The employer commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Employer, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Employer will, during the Tender process, treat all Bidder(s) with equity and reason. The Employer will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

- (c) The Employer shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- b. If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Employer will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- (1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the WAPCOS all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- (2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - (a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Employer's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - (b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Employer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - (d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - (e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

- (3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the WAPCOS interests.
- (5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3 : Consequences of Breach

Without prejudice to any rights that may be available to the Employer under law or the Contract or its established policies and laid down procedures, the Employer shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Employer's absolute right :

- (1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Employer after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Employer. Such exclusion may be forever or for a limited period as decided by the Employer.
- (2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Employer has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Employer apart from exercising any legal rights that may have accrued to the Employer, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- (3) Criminal Liability: If the Employer obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Employer has substantive suspicion in this regard, the Employer will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Employer.
- (3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Employer may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.
- (2) The Employer will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- (3) The Employer will disqualify Bidders, who do not submit, the duly signed Pact between the Employer and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6 : Duration of the Pact

- (1) This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.
- (2) If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, WAPCOS

Article 7 : Other Provisions

- (1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Head quarters of the Employer, who has floated the Tender.
- (2) Changes and supplements need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- (4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- (5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Employer in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8 : LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall

be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Employer)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

**FORM-G: FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES,
DISQUALIFICATION**

[To be submitted on Bidder's **Original** Letter Head]

To,
Chief Scientist
Ropeways Division
WAPCOS Limited

**Subject: Litigation History, Liquidated Damages, Disqualification for -----
 (Name of Work /Project)**

It is hereby declared that our firm (Name of firm with address-----) neither disqualified, nor have any Litigation history and no Liquidated Damage imposed on the firm by any Department.

Yours faithfully,

Date:

(Signature, name and designation
of the Authorized signatory)

Place:

Name and seal of Bidder

FORM-H: FORMAT FOR SOLVENCY CERTIFICATE**[To be submitted on Bank's Original Letter Head]****To,**

Chief Scientist,
 Ropeways Division
 WAPCOS LIMITED,
 2nd Floor, Plot No.- 62,
 Institutional Area, Sector – 18,
 Gurugram-122015, Haryana

Name of the Project:

This is to certify that to the best of our knowledge and information M/s _____ having marginally noted address, a customer of our bank are/ is respectable and can be treated as good for any engagement up to a limit of Rs. _____ (Rupees _____).

This certificate is issued without any guarantee or responsibility on the Bank or any of the officers.
 This certificate is issued at specific request of the customer for tender purpose.

Date:**Place:**

Signature of Authorized signatory of bank:
Name of Authorized signatory of bank:
E-mail id of Bank/Authorized signatory of bank:
Power of attorney number of the bank official:

FORM – I: DETAILS OF SIMILAR WORKS EXECUTED DURING LAST 07 YEARS MEETING THE MINIMUM ELIGIBILITY CRITERIA

Sl. No.	Name of work and its location	Name of Client	Date of Start	Date of Completion	Date of issue of Completion Certificate	Cost of Construction of the work on completion (In Rs.)	Litigation / Arbitration cases pending / in progress with details	Reference and Page No. of Documentary Proof
1.								
2.								
3.								
4.								
5.								
6.								

** The value of works shall be mentioned without GST.*

Certified that the Completion Certificates of above works are enclosed with the Tender Documents. Details mentioned in the above Form are as per Completion Certificates and have not been presumed. If any detail is not mentioned in the Work Completion Certificate, documentary proof of detail is to be submitted with the Completion Certificate.

Signature of Bidder with Seal

FORM – J: FORMAT FOR JOINT VENTURE AGREEMENT – NOT APPLICABLE

~~(ON NON-JUDICIAL STAMP PAPER OF Rs 300/-
TO BE PURCHASED IN THE NAME OF JOINT
VENTURE)~~

THIS JOINT BIDDING AGREEMENT is entered into on this the day of 2022 for for NIT No. WAP/ROPEWAYS/2022-23/___ dated ___.10.2022 of WAPCOS Limited.

AMONGST

1. Agencies / Companies/ Firms /Individual/ Sole Proprietor/Limited/Private Limited/ Joint Venture Company/ Partnership/Limited Liability Partnership (LLP) having its registered office at (hereinafter referred to as the “First Part” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. Agencies / Companies/ Firms /Individual/ Sole Proprietor/Limited/Private Limited/ Joint Venture Company / Partnership/Limited Liability Partnership (LLP) having its registered office at (hereinafter referred to as the “Second Part” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

3. Agencies / Companies/ Firms /Individual/ Sole Proprietor/Limited/Private Limited/ Joint Venture Company / Partnership/Limited Liability Partnership (LLP) having its registered office at (hereinafter referred to as the “Third Part” which expression shall, unless repugnant to the context include its successors and permitted assigns}}

The above mentioned parties of the FIRST, SECOND, AND THIRD PART are collectively referred to as the “Parties” and each is individually referred to as a “Party”

for the purpose of making a bid and entering into a contract (in case of award) for the work ~~C/o~~ CONSRTUCTION OF FOOT OVER BRIDGE WITH LIFT AT RENUKA DEVI TEMPLE AND CONSTRUCTION OF AERIAL ROPEWAY AT MAHUR TEMPLE MAHURGAD DIST. NANDED, MAHARASHTRA (**“CONSTRUCTION OF LIFT AND SKYWALK FOR RENUKA MATA TEMPLE “**) for which bids has been invited by WAPCOS Limited, a Government of India Undertaking, having its Registered Office at New Delhi (hereinafter called the “Employer) vide NIT No. WAP/ROPEWAYS/2022-23/___ dated ___.10.2022.

~~WHEREAS the Employer invited bids as per the Volume I and Volume II of the tender document for the above mentioned work for which bids have been invited vide NIT No.. WAP/ROPEWAYS/2022-23/___ dated __.10.2022 Specification for the design, engineering, manufacture, supply and erection, testing and commissioning and operation & maintenance of Equipment/Materials stipulated in the bidding documents under subject Package for~~

~~AND WHEREAS “SELECTION AND QUALIFYING CRITERIA” Section—II Vol.-I, “Technical Bid” and its subsequent amendments issued vide _____ forming part of the bidding documents, stipulates that a Joint Venture of two qualified firms as partners, meeting the requirement of “SELECTION AND QUALIFYING CRITERIA”, Section-II, Vol.-I and amendments thereof as applicable may bid, provided the Joint Venture fulfills all other requirements of relevant Section of the Tender Document and in such a case, the BID shall be signed by all the partners so as to legally bind all the Partners of the Joint Venture, who will be jointly and severally liable to perform the Contract and all obligations hereunder.~~

~~The above clause further states that the Joint Venture Agreement shall be attached with the bid and the contract performance guarantee will be as per the format enclosed with the bidding document without any restriction or liability for either party.~~

~~AND WHEREAS the bid has been submitted to the Employer vide letter No..... dated.....by the Lead Partner based on the Joint Venture agreement between its Partners under these presents and the bid in accordance with the requirements of (SELECTION AND QUALIFYING CRITERIA), Section—II Vol-I has been signed by all the partners.~~

~~NOW THIS INDENTURE WITNESSETH AS UNDER:~~

~~In consideration of the above premises and agreements, all the Partners to this Joint Venture do hereby now agree as follows:~~

- ~~1. The lead member of Joint venture has 60% stake and the other/s partners have a stake of 20 each.~~
- ~~2. In consideration of the award of the Contract by the Employer to the Joint Venture partners, we, the Partners to the Joint Venture agreement do hereby agree that M/s.....shall act as Lead Partner and further declare and confirm that we shall jointly and severally be bound unto the Employer for the successful performance of the Contract and shall be fully responsible for the design, engineering, manufacture, supply and erection, testing and commissioning and operation & maintenance and successful performance of the equipment in accordance with the Contract.~~

3. ~~In case of any breach of the said Contract by the Lead Partner or other Partner(s) of the Joint Venture agreement, the other Partner do hereby agree to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.~~
4. ~~Further, if the Employer suffers any loss or damage on account of any breach in the Contract or any shortfall in the performance of the equipment in meeting the performance guaranteed as per the specification in terms of the Contract, the Partner(s) of these presents undertake to promptly make good such loss or damages caused to the Employer, on its demand without any demur. It shall not be necessary or obligatory for the Employer to proceed against Lead Partner to these presents before proceeding against or dealing with the other Partner(s).~~
5. ~~The financial liability of the Partners of this Joint Venture agreement to the Employer, with respect to any of the claims arising out of the performance of non-performance of the obligations set forth in the said Joint Venture agreement, read in conjunction with the relevant conditions of the Contract shall, however, not be limited in any way so as to restrict or limit the liabilities of any of the Partners of the Joint Venture agreement.~~
6. ~~It is expressly understood and agreed between the Partners to this Joint Venture agreement that the responsibilities and obligations of each of the Partners shall be as delineated in **Appendix-I (*To be incorporated suitably by the Partners)** to this agreement. It is further agreed by the Partners that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the Partners under this Contract.~~
7. ~~This Joint Venture agreement shall be construed and interpreted in accordance with the laws of India and the courts of Delhi shall have the exclusive jurisdiction in all matters arising there under.~~
8. ~~In case of an award of a Contract, We the Partners to the Joint Venture Agreement do hereby agree that we shall be jointly and severally responsible for furnishing a contract performance security from a bank in favour of the Employer in the forms acceptable to purchaser for value of 03% of the Contract Price in the currency/currencies of the Contract.~~
9. ~~It is further agreed that the Joint Venture agreement shall be irrevocable and shall form an integral part of the Contract and shall continue to be enforceable till the Employer discharges the same. It shall be effective from the date first mentioned above for all purposes and intents.~~

~~IN WITNESS WHEREOF, the Partners to the Joint Venture agreement have through their authorized representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.~~

1. Common Seal of.....

has been affixed in my/our presence
pursuant to the Board of Director's
resolution

dated.....

Signature.....

Name.....

Designation.....

For Lead Partner

(Signature of authorized representative)

Name.....

Designation.....

Common Seal of the company

.....

2. Common Seal of.....

has been affixed in my/our presence
pursuant to the Board of Director's
resolution

dated.....

Signature.....

Name.....

Designation.....

For other Partners

(Signature of authorized representative)

Name.....

Designation.....

Common Seal of the company

.....

3. Common Seal of.....

has been affixed in my/our presence
pursuant to the Board of Director's
resolution

dated.....

Signature.....

Name.....

Designation.....

For other Partners

(Signature of authorized representative)

Name.....

Designation.....

Common Seal of the company

.....

WITNESSES:

1. (Signature).....

Name

.....

(Official address)

3. (Signature).....

Name

.....

(Official address)

2 (Signature).....

Name.....

.....

(Official address)

FORM K: NON-BLACKLISTING/DEBARMENT UNDERTAKING**UNDERTAKING REGARDING BLACKLISTING / NON –
DEBARMENT**

Name of work:

Ref.: Tender No..... dated.....

To,

Engineer In charge of Project,

WAPCOS Limited,

76 C, Industrial Area,

Gurgaon, Haryana

This is to certify that we have taken the cognizance of Blacklisting Policy of WAPCOS Ltd. Further, we hereby confirm and declare that we, M/s _____, is not blacklisted/ De-registered/ debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services during the last 5 years.

For -----

Authorised Signatory

Date:

SECTION– VII

SCOPE OF WORK

SECTION – VII: SCOPE OF WORK

1.0 Brief Scope of Work:

This project is a great initiative by Central Coalfields Limited (CCL) (A Category-I Mini-Ratna Company under Ministry of Mines, Govt. of India) for reclamation of degraded land such as OB Dump (overburden dumps) or Surface of underground mine areas by developing them into Eco-park which includes not just preservation of Existing Natural Landscapes but also Restoring nature conservation and a large-scale transformation of both the social and environmental landscapes.

The current work involves development of Eco-park at Barkakana location. The work shall include execution of below mentioned works but not limited to. The work has to be carried out in accordance with Detailed Specifications of all the works; Tender Drawings, Architectural, Approved Structural & Services Drawings, list of Approved makes of works, General Technical specifications of works and other conditions stipulated in Tender Document. The contractor shall be responsible for procurement, transportation, providing, laying, fixing of all material required for the execution of work. The Scope of work includes but not limited to:

- i. Site Preparation including site levelling, Jungle Cleaning, compaction-if required, layout etc.
- ii. Felling of Trees in the project area not permitted. If required, permission has to be taken from prior to cutting of tree from WAPCOS/CCL
- iii. Earthwork and Construction of Foundations including PCC/RCC/Rubble Stone works.
- iv. Construction of Boundary Walls with Gabion Basket Structure.
- v. Construction of Eco Park including Concrete work, RCC work, Centering & Shuttering, flooring, Tiles, Marble/Granite/Stone/water proofing, termite treatment, wood work, Finishing works etc.
- vi. Providing and installing Gym Equipment.
- vii. Providing necessary signage.
- viii. Internal and External Electrification, Internal-External Panels, CCTV System Etc.
- ix. Plumbing Works internal and external etc.
- x. Associated Infrastructure like Guard Room, Cafeteria, Rest Room, Ticketing Booth, Souvenir Shop, Electrical room, Horticulture and Landscaping, Internal Pathways, Septic Tank etc.
- xi. Construction of Parking etc.
- xii. The entire Eco Park complete in all respect as per approved drawings including all the equipment etc.
- xiii. Contractor shall arrange Agricultural workshops
 - Educate and propagate the agricultural technical know-how among the local farmers for their benefits.
 - Organize technical workshops for Farmers and cover following aspects but not limited to Choose the Right Tools and Equipment
 - Best agricultural practices

- Crop Rotation
- Build their skills in farm management
- Improve the local economy
- Any other aspect as suggested by WAPCOS/CCL
- The frequency and duration of Technical Propagation workshops shall be decided in discussion with WAPCOS/CCL

2.0 Sequence of Activity/ Project Milestones & Completion Timeline:

Timeline: 2 Months from date of Award

- i) Site Preparation including site levelling, Jungle Cleaning, Cutting/Filling, compaction wherever required.
- ii) Layout of all proposed features of the project (Pathways, gardens, parks, amenities etc.).
- iii) Bed Preparation of all Parks/Gardens, Trench excavation for trees. Mixing Manuring/vermi Compost with good earth to prepare bed for Parks/Gardens.
- iv) Construction of Green House, Bio Compost pit, preparation of nursery bed, sowing of seeds planting plants in nursery bed.
- v) Boring/drilling bore well along with fixing pump & commission & Construction of water tank.

Timeline: 4 Months from date of Award

- vi) Water body layout/excavation, bed preparation.
- vii) Laying of Pipeline for irrigation/watering of all Parks & Gardens etc.
- viii) Planting Plants/Trees including herbs/shrubs to all Parks/Garden.
- ix) Construction of Parking and entrance gate.

Timeline: 6 Months from date of Award

- x) Construction of All Amenities.
- xi) Procurement of all equipment's of children park/gym, seating benches, making of gazebo & other components of the Eco- Park
- xii) Internal and External Electrification including Plumbing Work.
- xiii) Supplying & installation of other components of eco-park given in scope of work.
- xiv) Installation of CCTV, Solar System and Solar Street lights, other street lights mentioned in the scope of work.
- xv) Any other activities not specified above but in the scope of work of contractor

The activities to be completed within the time frame mentioned above.

A. Design and Drawings of Project / Work

The drawings given in the tender document to understand the detailed scope of the work. Tender drawings will be revised/modified as per the site conditions, technical requirements as per the Indian Standard of Codes, and due to unforeseen conditions and as per the decision by Engineer In-charge.

All the Good for Construction (GFC) Drawings required for the execution of work as per the scope of work will be provided by WAPCOS. If Contractor found any discrepancy in the issued GFC drawings, he may bring same to the notice of WAPCOS before execution, as safety and stability of the structure is also the responsibility of the Contractor

The Contractor will submit the detailed PERT/CPM chart to WAPCOS within 7 days after award of the work so that planning of release of stage-wise drawings may be ensured. Accordingly, stage-wise GFC drawings will be released as per the progress of the works achieved by the Contractor. The GFC drawings will be issued after scrutiny of the drawings by WAPCOS and proper approvals from Client. No advance drawings shall be issued to the Contractor. The Contractor may make advance planning

according to the drawings attached with the Tender document as the drawings are detailed and comprehensive.

B. NOC'S / APPROVALS / CLEARANCE OF PROJECT FROM LOCAL BODIES / AUTHORITIES

The Contractor will take necessary Statuary Approval / NoCs / Clearance from all concern Local Authorities / Departments (Local Electricity Distribution Authority / State Electricity board etc./ Electrical inspectorate / pollution department/ forest department etc.), if any, required before start of the work / during the work / after execution of work & before handing over the Project.

The fee for getting these approvals, shall be deposited by the Contractor to the concerned Department / Authorities and no extra cost for the same shall be claimed by the contractor.

The Electricity connection as required for the project shall be obtained by contractor under owners name (CCL).

The contractor shall mobilize the resources at site after getting approval / NoCs / Clearance from all concern Local Authorities / Departments if any, essential before start of the construction and shall not make any claim due to any delay in approval.

C. GEOTECHNICAL INVESTIGATION

Soil exploration and soil investigation shall be carried out by contractor as per requirement in accordance with relevant IS code.

D. TOPOGRAPHICAL SURVEY

The detail Topographical Survey work of entire site has already been carried out by WAPCOS and enclosed with this tender Document in drawing section. However, Contractor/Bidder may carry out detail survey at his own cost, to verify the survey data provided by the WAPCOS and make own assessment about topography of site, before quoting rate and start of the Construction. No claim of Contractor in respect of discrepancy in topographical survey / levels shall be entertained.

3.0 WORKS OF THE PROJECT

The works of the project shall be executed as per Architectural Drawings, Approved Structural & Services Drawings/GFC Drawings, Detailed Specification of the Items, CPWD Specifications, DSR Specifications, Horticulture/ LandscapeDSR, list of Approved makes of works. General Technical specifications of works and other conditions mentioned in the tender document. Contractor will finalize the brand of material in consultation with WAPCOS before execution of work from the following list of approved makes which are applicable for this work.

General Specifications to be followed:

1. The Foundations, Load bearing Walls, Partition walls of Amenities shall be made by Coursed Rubble Stone.
2. The flooring for the Amenities & Ramps shall be of Kota Stone.
3. The flooring in Toilets shall be of Antiskid tiles.
4. Roofing of Amenities shall be done with I-Section Iron and Agra stone with proper water proofing.

4.0 LIST OF APPROVED MAKES

1. All materials and products used in the work shall conform to the relevant standards/ specifications and shall be of approved make and design. Lists of approved manufacturers/ vendors for Civil works, Electrical works etc. is given herein below. The approval of a manufacturer/vendor shall be given only after review of the sample/ specimen by the Engineer-in-charge/Consultant/Client. The complete system and installation shall also be in conformity with the "Applicable Codes Standards and Publications".
2. List of Approved makes for Products, Materials and specialist agencies is given below. Other equivalent manufacturers may be considered with prior approval; however the decision of the Engineer-in-charge shall be final and binding.
3. The Engineer- In-charge/Consultant/Client reserves the right to select any of the brand indicated in the list of approved make. The tenderer shall quote his rates on the basis of price of best quality product of the brand/make stipulated in the items of works as described in BOQ, specifications as well as in the list of approved make. The contractor cannot claim anything extra if the Engineer In-charge/ Consultant/Client changes the make but within the list of approved make.
4. When certain makes are missing in the below list, the make will be decided as per the approval of Engineer In-charge.

5.0 CIVIL WORKS

GENERAL TECHNICAL SPECIFICATIONS

The General Technical Specification of Civil Works will be as per Drawings, Details of items given in this section, provisions within DSR/SOR, relevant IS Codes, CPWD Specifications, Building Codes, approved Drawings, Standard norms and standard specification of particular works.

List of Approved Makes of Civil Works

Acceptable makes of materials for civil work to be used in the work are enclosed. In case of non-availability of these makes, the Contractor can use the alternative makes only BIS marked materials after approvals. Non-BIS marked materials may be permitted by the WAPCOS only when BIS marked materials are not manufactured.

S.No.	Name of Item	Make Approved
1.	ORDINARY PORT LAND CEMENT GRADE 43/53, PORT LAND POZZOLONA CEMENT	JK, ACC, ULTRA-TECH, JAYPEE, SHREE, AMBUJA
2.	WHITE CEMENT	JK, BIRLA, ACC, JAYPEE, AMBUJA
3.	REINFORCEMENT STEEL	TATA, SAIL, RINL, JINDAL, JSW STEEL
4.	PLY / BOARD / MDF	DURO, MERINO, GREEN PLY, AGNI, KITPLY, CENTURY
5.	LOCK / BRASS FITTING	DORSET, DORMA, OZONE, GODREJ, HAFELE

S.No.	Name of Item	Make Approved
6.	WALL PUTTY	JK, BIRLA, ACRO, BERGER
7.	STRUCTURAL STEEL / TUBULAR TRUSS	TATA, SAIL, RINL, JINDAL, APL APOLLO
8.	PAINT / POLISH / PRIMER / WATERPROOFING PAINT	BERGER, ASIAN, DULUX, NEROLAC
9.	POWDER COATING	AKZONOBEL, ASIAN
10.	EPOXY PAINT / WATERPROOFING WORKS	FIBRE X / BASF / SIKA / FOSROC
11.	FLOOR & WALL TILE (VITRIFIED & CERAMIC	KAJARIA, ORIENT BELL, SO MANY, NITCO
12.	GLASS / MIRROR	ASAHI, SAINT GOBAIN, PILKINGTON, MODIGUARD
13.	CONSTRUCTION / WATERPROOFING CHEMICAL, AD MIXTURES	ROFFE, FOSROC, SIKA, ULTRACON, PIDILITE
14.	ANTI-TERMITE	VAM ORGANICS, PYRAMID, TERMISOL
15.	FLUSH DOOR	DURO, CENTURY, MERINO, ARCHID PLY, AGNI
16.	DOOR FITTINGS & FIXTURES	DORMA, OZONE, DORSET, EBCO, HAFELE
17.	GLASS / SS HANDRAIL	DORMA, OZONE, DORSET
18.	ALUMINIUM SECTIONS	JINDAL, BHAROUKA, HINDALCO, ALUDECOR
19.	MODULAR FURNITURE	GODREJ, BPERGO, FEATHER LITE, WIPRO
20.	VENEER / LAMINATE	MERINO,CENTURY,AGNI, DURO, GREEN, ARCHID PLY
21.	SIGNAGES	3M, XENON OR EQUIVALENT
22.	PAVER BLOCK / KERB STONE of M30 Grade and 60 mm thick	NITCO, UNITILE, NIMCO OR EQUIVALENT

S.No.	Name of Item	Make Approved
23.	FIRE RETARDANT PAINT	NULLIFIER / SIGNUM / GODREJ / NIPPON / CARBOLINE
24.	FIRE DOOR	SUKRI, NAVAIR, DORMA
25.	PIPES RELATED WORKS	REFER MAKE LIST FOR PHE WORKS
26.	STAINLESS STEEL (GRADE 304) RAILING MADE OF HOLLOW TUBES, CHANNELS, PLATESE TC	JINDAL, TATA, MONNET
27.	ACP	VIVA, ALSTRONG, ALUDECOR, ALUCOBOND, VIRGO
28.	GLASS FIBER REINFORCEMENT CONCRETE	DALAL TILES, SHENISHA, BIRLA

6.0 Electrical Works

GENERAL TECHNICAL SPECIFICATIONS

The General Technical Specification of Electrical Works will be as per the Bill of Quantities, provision within DSR/SOR, IS Codes, Building Codes, CPWD specifications, approved drawings, Standard Norms and standard specifications of particular works.

LIST OF APPROVED MAKES FOR ELECTRICAL

Acceptable makes of materials for electrical and fire alarm work to be used in the work are enclosed. In case of non-availability of these makes, the Contractor can use the alternative makes only BIS marked materials after approvals. Non BIS marked materials may be permitted by the WAPCOS only when BIS marked materials are not manufactured.

ITEM	MANUFACTURERS NAME
Air Circuit Breaker	Schneider/Siemens/L&T/ BCH /ABB
Moulded Case Circuit Breaker With Rotary operating handle.	Schneider/Siemens/L&T/ABB/BCH/Polycab
Transformer/Compact Substation	ABB/Schneider/Kriloskar/Crompton
Digital meters	EI Measure / L&T / Conserve / Trinity / Neptune Ducati
Contactors, Timers	Schneider/ABB/ L&T/ BCH/Legrand/ Siemens

ITEM	MANUFACTURERS NAME
Capacitors/capacitor with relay	Schneider/EPCOS / L&T/ BCH/
Voltmeter & Ammeter	Conzerve / Enersol / HPL
Switch Gear	Schneider/Siemens/L&T/ABB/Crompton/ BCH/
Selector Switch	Kaycee / L &T
Current Transformer	Matrix/AE/C&S/ G&M
Indicating Lamp	L&T / Siemens / BCH/AE
Protective Relays	ABB/ L&T/Siemens/Schneider/GE
Multifunctional meter	L&T / Legrend /Conzerv
APFC Relay(Microprocessor based)	Syntron / Enercon / BCH/ L&T / Ducati / Schneider
Batteries	Exide/Amar Raja / Okaya / Luminous
Battery Charger	Uptron / Voltstat Electronics
L.T./ H.T.Cable	Polycab / Havells / BCH/ Finolex / KEI
DC Miniature Circuit Breaker	Schneider/Siemens/ BCH/Polycab/Legrand
Cable Lug (Tinned Copper)	Dowells / Multi / Capital
Cable Gland	Peeco / Commet / Gripwell / Power
Main L.T. Panel, Capacitor Panel & Distribution Panel	SPC Electrotech / Tricolite / BCH/ Adlec/ Application Control / Precision
Cable Tray/ Raceway	Pilco / CTM Engineers / KME / Slotco / Steelways
Fire Extinguishers	Zenith / Minimax / Newage / Cease Fire
Energy Analyzer Meter	Conzerve / Elemeasure / Enersol
Voltmeter & Ammeter	Conzerve / Elmeasure / Enersol
Distribution Boards with Miniature Circuit Breakers, RCCB	Hager / Legrand / BCH/ polycab /L&T / Havells
PVC Insulated copper conductor single core Stranded wires of 650/1100 volt grade	Havells / finolex / BCH/ Polycab
Telephone Tag Block	Krone / TVS R&M
PVC Conduit	BEC / AKG / polycab / RMCON / ASTRAL
M.S. Conduit	BEC / AKG / RMCON / JINDAL
Modular Switches & Sockets	Legrand / Havells / polycab /Anchor
LV System Wire	Siemens / Legrand /BCH/Amp / Havells / polycab
TV/Telephone outlet	Siemens / Legrand / Havells / polycab
Data Outlet	Siemens / Legrand / Havells / polycab
Data Rack	Siemens / APW / Legrand / Wipro
Light Fixture	Philips / Havells / polycab / wipro

ITEM	MANUFACTURERS NAME
Lamps	Philips / Havells / polycab / wipro
Ceiling Fan	Orient / Havells / Crompton Greaves / Bajaj
Exhaust Fan with louvers	Orient / Havells / Crompton Greaves / Bajaj
Geyser	Havells / Bajaj / V-Guard /A-OSmith / Jaguar / Crompton Greaves
Fire Alarm System	Notifier Honeywell /Siemens /Tyco / Edwards / Agni
Presence Detector	Hagger / Legrand / Philips
RCC Hume Pipe for Electrical Works	ISI Marked of Reputed Company
PLC	Siemens /Allen Bradley
Telephone / Coaxial Wire	Polycab / finolex / Havells
Professional LED Panel	Panasonic / Samsung / Sony
Public Address System	Honeywell / Bosch / Tyco / Edwards
D.G.Set (Engine)	Cummins / Catterpillar / Stamford / Kirloskar
D.G.Set (Alternator)	Stamford / Lerroy Sommer / Catterpillar
D.G.Acoustic Enclosure	Jakson / Sterling / Catter Piller / Sudhir
H.T.Panel	ABB / Schneider / Siemens
H.T.Termination Kit	Raychem / Denson
Inverter	Topaz International / Luminous / Hytes / Su-Kam / Microtech
Camera With All Accessories	Axis / Inpulse / Idis / Bosch / Pelco
Road Barrier	Nice / Magnetics / Godrej / GE
Card Reader	Sensormatic-Usa / Motorola / Honeywell (XIs-3000)
Monitor	LG / Samsung / Sony
Multiplexer	Sensormatic Or Equivalent
Sequencer	Alba / Vantage
Proximity Card	Motorola / Hughes / Honeywell / GE / Siemens /Hid
Telephone Tag Block	Ctm Engg / Systimax / Schneider / Panduit
Telephone Cables	Delton / Skytone / Clipsal / BCH/havells
Co-Axial Cables	Finolex / havells / polycab/ BCH/
EPABX	Alkatel / Siemens / Nec / Avaya / Panasonic
CCTV System	Axis / Impulse / Idis / Bosch / Honneywell / Tyco
Access Control System	Honeywell / Siemens / Syris
Video Conference System	Polycom / Sony / Sysco
Audio Processor	Bose / Bss / Clearone
Bms Controller / Software Central Control Bms Server	Ibm / Hp / Dell

ITEM	MANUFACTURERS NAME
Building Management System, Building management Web Based Server Software, Programmable & Application Specifier Controller	Siemens / Honeywell Ebi / Tyco / Schneider
Sensor & Field Devices Immersion Type Temperature Sensors, Flow Meter, Ultra Sonic Thermal Energy Meter, Outside T+Rh Sensor	Siemens / Kele / Sauiter Race
Water Level Switches, Flame Proof Level Switches	Kele / Veskler / Flipro
Dc Voltage Transducer, Current Relay	Kele / Situ / Omicron
Room Type Temp. Sensor, Co2 Sensor, Ambient Temp. Sensor	Siemens / Kele / Trane
Co-Sensor	Dwyer / Kale / Msr German
Pressure Transmitter	Siemens / Trane / Omicron
Differential Pressure Sensor	Siemens / Trane / Veskler
Fire Suppression System	Siemens / Kidde / Tyco
High Mast and Poles	Bajaj Electricals / My Fair Light / Paruthi Engineering
Service / Passenger Elevators	Kone / Schindler / OTIS

7.0 PHE WORKS

GENERAL TECHNICAL SPECIFICATIONS

The General Technical Specification of PHE Works will be as per the Bill of Quantities, provision within DSR/SOR, IS Codes, Building Codes, CPWD Specifications, approved drawings, Standard Norms and standard specifications of particular works.

List of Approved makes for PHE works

Acceptable makes of materials for PHE and Sanitation Materials to be used in the work are enclosed. In case of non-availability of these makes, the Contractor can use the alternative makes only BIS marked materials after approvals. Non-BIS marked materials may be permitted by the WAPCOS only when BIS marked materials are not manufactured.

S.No.	ITEM	MANUFACTURERS NAME
1.	VITREOUS CHINA AND FIRE CLAY SANITARY WARE WITH COVER	JAQUAR / HINDWARE / PARRYWARE / ROCA / KOHLER / CERA

S.No.	ITEM	MANUFACTURERS NAME
2.	STAINLESS STEEL SINKS	JAYNA / PARRYWARE/ NEELKANTH / NIRALI / CERA
3.	C.P.FITTINGS & ACCESSORIES	JAQUAR / HINDWARE / PARKO / ROCA / CERA
4.	C.P.WASTE, SPREADERS, URINAL FLUSH PIPES	JAQUAR / HINDWARE / PARRYWARE / ROCA / CERA
5.	SS COCK ROACHTRAPS, GRATINGS FOR FLOOR DRAINS, FLOOR TRAPS AND RAIN WATER GRATINGS	CHILLY / JAYNA / CAMRY
6.	SOIL,WASTE & FITTINGS (a) CENTRIFUGALLY CAST SPUN CASTIRON PIPES (IS:3989)	SKF / NECO / BIC / PRINCE / SUPREME / KISSAN
7.	RCC PIPES	PRAGATI / JAIN SPUN / ISI MARKS OF REPUTED COMPANY
8.	PVC / CPVC PIPES & FITTINGS	ASTRAL / ASHIRVAD / PRINCE / FINOLEX / PRAKASH / SUPREME
9.	HAND DRIER	JAQUAR / HINDWARE / EURONICS
10.	BALL VALVES	ZOLOTO / LEADER /AIP / SANT / NEUG
11.	RAIN WATER PIPES & FITTINGS UPVC PIPES AND FITTINGS	PRINCE / SUPREME / PRAKASH / FINOLEX / ORI-PLAST
12.	WAFER TYPE BUTTERFLY VALVES	ZOLOTO / LEADER / AIP / DANFOSS / SANT / NEU-G
13.	WAFER TYPE NON-RETURN VALVES	ZOLOTO / LEADER / AIP / DANFOSS SANT / NEU-G
14.	WATER METRES	CAPSTAN / KRANTI / KAYCEE / AQUAMET
15.	BALL COCKS	GPA /DRP / SANT / L&K
16.	STONEWARE PIPES & GULLY TRAPS	PERFECT / BURN / RK / SAURAKHI / MOU
17.	C.I. MANHOLES COVERS AND FRAMES	NECO / RIF / BIC / SKF / BIC / RPMF

S.No.	ITEM	MANUFACTURERS NAME
18.	RCC MANHOLE COVERS & FRAMES	KK / PRAKASH / JSP
19.	FASTNERS	HILTI / INTELLOTEC / TRUCTEK / FISHER
20.	WATER HEATER	HAVELLS / BAJAJ/ CROMPTON GREAVES
21.	HOT WATER NEOPRENE INSULATION	KAIFLEX
22.	GATE / FULLLL WAY VALVES AND GLOBE VALVES	LEADER / ZOLOTO / SANT
23.	AIR RELEASE VALVES	SANT / LEADER / DANFOSS / ZOLOTO
24.	PIPE COAT	IWL LIMITED / PYPKOTE
25.	C.I. PIPE	RIF, NECO, SKF, HEPCO, BIC
26.	G.I. PIPE	JINDAL, TATA, SWASTIK, APL APOLLO, SURYAPRAKASH
27.	G.I.FITTINGS (MALLEABLE CASTIRON)	JINDAL / SURYAPRAKASH / DRP-M / ZOLOTO-M / UNIK
28.	M.S. FITTINGS (FORGED)	DRP / VS
29.	OVERHEAD WATER TANK	SINTEX, SHEETAL, EUREWELL
30.	WATER COOLER	BLUESTAR / VOLTAS / GODREJ
31.	R.O. WATER PURIFIER	KENT / EUREKA FORBES / ION EXCHANGE
32.	WATER TREATMENT PLANT	ION EXCHANGE THERMAX / BRISANZIA
33.	HDPE PIPE	PRINCE / SUPREME / PRAKASH/ FINOLEX / DUROLINE
34.	DI PIPE	JINDAL/ PRINCE/ SUPREME/ PRAKASH/FINOLEX/JAIBALAJI

6.0 List of items in the scope shall be include following but not limited to:

All components mentioned in the scope of work (as per enclosed drawings) shall have minimum specifications mentioned below

Following items are indicative with minimum specifications required for the project. Higher specifications are allowed. List of Items in the scope shall include following but not limited to

7.0 Proposed Components of Master Plan

Site development for an approximate area of 1.60 hectares, may vary as per site location (as shown in the master plan drawing) which includes the following:

S.No.	Amenity Blocks	No. of Blocks proposed	Length/Area per block	Total Area/Length
1	Entry /Exit Gate	1		
2	Guard Room/Ticketing Booth/Office	1	27.71	27.71
3	Cafeteria	1	36.00	36.00
4	Souvenir Shop	1	27.71	27.71
5	Rest Room	1	39.26	39.26
6	Parking	1	776.48	776.48
7	Gazebo	3	12.00	36.00
8	Resting Point with Benches			
a	Amenities Building Furniture	5		
b	Bamboo Chairs	25		
9	Visual green/ Mound		208.52	208.52
10	Green House	1	200.00	200.00
11	Nursery Bed	1	413.00	413.00
12	Bio-Compost	1	25.00	25.00
13	Open Gym/Exercise Area	1	253.88	253.88
14	Collection Pond	1	722.00	722.00
15	Pathway	1	2000.00	2000.00
16	Natural Trail	1	1000.00	1000.00
17	Sculpture	5		
18	Sculpture Garden	1	200.00	200.00
20	Maze Garden	1	285.22	285.22

S.No.	Amenity Blocks	No. of Blocks proposed	Length/Area per block	Total Area/Length
21	Topiary garden	1	220.00	220.00
22	Flower Bed	1	408.00	408.00
23	Agri Land & Herbal Garden	1	554.59	554.59
24	Edible Garden	1	250.00	250.00
25	Multipurpose ground	1	421.29	421.29
26	Meditation/Yoga Ground	1	300.00	300.00
27	Children's Park	1	277.67	277.67
28	Senior Citizen Park	1	660.00	660.00
29	Orchard	1	1979.01	1979.01
30	FRP Dustbins	12		
31	Picnic Lawn	1	444.61	444.61
32	Feature Wall	1	3.00	3.00
33	Electrical Room	1	27.71	27.71
34	Electrical & Mechanical Works			
35	Misc. Civil Works Items			
a	Boring/drilling 300 mm dia bore well	1		
b	Water Tank of size 3m x 3m x 3m	1		

Note :

- The above areas are approximate and includes the ground floor area/ area as required to be provided in each amenity block.
- If there is any increase/decrease in variation upto 5% +/- of built-up area of the floor plan of each building/feature, there will not be any additional cost payable on this account.

- Entry & Exit Gate:-**

ITEM NO	DESCRIPTION OF ITEM	UNIT	REFERENCE DSR 2021/MR
1.00	EARTH WORKS		

ITEM	DESCRIPTION OF ITEM	UNIT	REFERENCE
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.		2.6
	All kinds of soils	Cum.	2.6.1
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum.	2.25
1.03	Disposal of moorum/building rubbish/ malba/ similar unserviceable, dismantled or waste material by mechanical transport including loading, transporting, unloading to approved municipal dumping ground for lead upto 10 km for all lifts, complete as per directions of Engineer-in-charge. Note - item to be applicable in urban areas having directions for restricted hours for movement/ plying of load carrying motor vehicle of 3.5 cum or more.	Cum	1.1.18
2.00	CONCRETE WORKS		
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		4.1
	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum.	4.1.6
2.02	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 coarse sand : 6graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	Sqm	4.17
3.00	REINFORCED CONCRETE WORK		
3.01	Centering and shuttering including strutting, propping etc. and removal of form for :		5.9
a	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	5.9.1
b	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	5.9.6
3.02	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.		5.22
a	Thermo-Mechanically Treated bars of grade Fe-500D or more	Kg	5.22.6
3.03	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to		5.33

ITEM	DESCRIPTION OF ITEM	UNIT	REFERENCE
	either re-design the mix or bear the cost of extra cement.		
	All works upto plinth leve		
	Concrete of M30 grade with minimum cement content of 350 kg /cum	Cum	5.33.1.2
4.00	CLADDING WORKS		
4.01	Stone work (machine cut edges) for wall lining etc. (veneer work) upto 10 metre height, backing filled with a grout of average 12 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately) :		8.9.1
	Stone - exposed face fine dressed with rough backing. (60 mm thick)	Sqm	8.14.1.2
5	BAMBOO WORKS		
5.01	Providing and fixing 75 mm thick treated bamboo framing with adequate t-detail system as per the design, all complete.		MR
a	9 meter Length	Nos.	
b	6 meter Length	Nos.	
c	4 meter Length	Nos.	
5.2	Providing and fixing bamboo board/ply matt as per the required design and fixing detail all complete.	Sqm	MR
6.00	ARCHITECTURAL STEEL WORKS	-	-
6.01	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	10.2
6.02	Providing and fixing welded G.I wire mesh of 25x25 mm including all complete.	Kg	MR
6.03	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.		13.52
	On steel work	Sqm	13.52.1
7.00	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	11.27
8.00	Providing and fixing Stainless Steel (24 SWG) Letters with CNC laser cutting with MS \ frame backing i/c all hardware required complete in all respect as per drawings and direction of Engineer In-charge.	Sqm	MR

- Cafeteria

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
1.0	EARTH WORKS		
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.		2.6
	All kinds of soils	Cum	2.6.1
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	2.25
	Anti-termite treatment		
1.03	Supplying chemical emulsion in sealed containers including delivery as specified.		2.34
	Chlorpyrifos/ Lindane emulsifiable concentrate of 20%	litre	2.34.1
1.04	Diluting and injecting chemical emulsion for POST CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :		2.35
	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor:		2.35.3
	With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	Sqm	2.35.3.1
2.00	CONCRETE WORKS		
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		4.1
	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	4.1.8
2.02	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 coarse sand : 6graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	Sqm	4.17
3.00	STONE WORKS WITH COURSED RUBBLE MASONRY		
3.01	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with : 7.6.1 Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	7.6.1
	Rubble Masonry Below Plinth Level		
3.02	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level. 7.8.2 Masonry work (second sort), in cement mortar 1:6 (1 cement:6 coarse sand)	cum	7.8.1
4.00	WOOD & ALUMINIUM WORKS		

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
4.01	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion		21.1.1
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	21.1.1.2
4.02	FLUSH DOOR SHUTTER : Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters .		
b	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	9.20.2
4.03	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Sqm	9.23
4.04	Providing & Fixing of Hinges including fixtures complete as approved by engineer in charge.	Each	MR
4.05	Providing & Fixing of Overhead Door Closer including fixtures complete as approved by engineer in charge.	Each	MR
4.06	Providing & Fixing of Door Stops including fixtures complete as approved by engineer in charge.	Each	MR
4.07	Providing & Fixing of Lever Action Flush Bolt including fixtures complete as approved by engineer in charge.	Each	MR
4.08	Providing & Fixing of Floor Bolt Sockets including fixtures complete as approved by engineer in charge.	Each	MR
4.09	Providing & Fixing of Cylinder Locks including fixtures complete as approved by engineer in charge.	Each	MR
4.10	Providing & Fixing of Lever Action Door Handle including fixtures complete as approved by engineer in charge.	Each	MR
4.11	Providing and fixing horizontal chajja cum lintel of stone 40 mm thick and upto 60 cm projection in cement mortar 1:4 (1 cement : 4 coarse sand), including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : The chajja shall be supported with MS angle & flat in openings as per architectural drawing and design.		
	Red sand stone 40 mm thick	sqm	MR
5.00	FLOORING WORKS		

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
5.01	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :25 mm thick	Sqm	11.26.1
5.02	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	11.27
6.00	ARCHITECTURAL STEEL WORKS for Rolling Shutters	-	-
6.01	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80 mm x 1.25 mm MS laths with 1.25 mm thick top cover	sqm	10.6.1
6.02	Providing and fixing ball bearing for rolling shutters	each	10.7
6.03	Extra for providing grilled rolling shutters manufactured out of 8 mm dia MS bars instead of laths as per design approved by Engineer-In-Charge (Area of grill to be measured)	Sqm	10.9
7.00	ROOFING WORKS with GI PROFILE SHEET	-	-
7.01	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	10.2
7.02	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	12.50
7.03	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Ridges plain (500 - 600mm)	Sqm	12.51.1
7.04	Providing and fixing plain multipurpose cement board(Hight pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately). 6 mm thick	Sqm	12.26.1

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
	Cement fiber board as per IS: 14862		
7.05	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade. Two or more coats on new work	Sqm	13.61.1
8.00	Plumbing Works		
a	Internal water supply		cpwd PAR 2021 2.1
9.00	Internal Electrical Works		
a	Internal electric installations		cpwd PAR 2021 2.3
b	Power Wiring Plugs		cpwd PAR 2021 2.4.1

- Toilet Block

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
1.00	EARTH WORKS		
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.		2.6
	All kinds of soils	Cum.	2.6.1
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum.	2.25
1.03	Anti termite treatment		
	Supplying chemical emulsion in sealed containers including delivery as specified.		2.34
	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	litre	2.34.1
2.00	CONCRETE WORKS		
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		4.1
	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	4.1.8
2.02	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 coarse sand : 6graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	Sqm	4.17
3.00	STONE WORKS WITH COURSED RUBBLE MASONRY		

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
3.01	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with : 7.6.1 Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	7.6.1
	Rubble Masonry Below Plinth Level		
3.02	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level. 7.8.2 Masonry work (second sort), in cement mortar 1:6 (1 cement:6 coarse sand)	cum	7.8.1
4.00	WOOD & ALUMINIUM WORKS		
4.01	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion		21.1.1
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	21.1.1.2
4.02	FLUSH DOOR SHUTTER : Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters .		
b	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	9.20.2
4.03	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	sqm	9.23
4.04	Providing & Fixing of Hinges including fixtures complete as approved by engineer in charge.	Each	MR
4.05	Providing & Fixing of Overhead Door Closer including fixtures complete as approved by engineer in charge.	Each	MR
4.06	Providing & Fixing of Door Stops including fixtures complete as approved by engineer in charge.	Each	MR
4.07	Providing & Fixing of Lever Action Flush Bolt including fixtures complete as approved by engineer in charge.	Each	MR
4.08	Providing & Fixing of Floor Bolt Sockets including fixtures complete as approved by engineer in charge.	Each	MR
4.09	Providing & Fixing of Cylinder Locks including fixtures complete as approved by engineer in charge.	Each	MR
4.10	Providing & Fixing of Lever Action Door Handle including fixtures complete as approved by engineer in charge.	Each	MR
4.11	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene		

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
	gasket required (Fittings shall be paid for separately)		
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	21.1.2.2
4.12	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):	Sqm	21.3.2
4.13	Providing and fixing horizontal chajja cum lintel of stone 40 mm thick and upto 60 cm projection in cement mortar 1:4 (1 cement : 4 coarse sand), including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : The chajja shall be supported with MS angle & flat in openings as per architectural drawing and design.		
	Red sand stone 40 mm thick	sqm	MR
5.00	FLOORING WORKS		
5.01	Providing and fixing 18 mm thick gang saw cut , mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters , window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
I	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble (Area of slab over 0.50 sqm.)	Sqm	8.2.1.2
5.02	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc. , including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.		
I	Marble work	Metre	8.3.1
5.03	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	each	8.5
5.04	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :25 mm thick	Sqm	11.26.1
5.05	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	11.27
5.06	Providing and laying Ceramic Antiskid finish floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white	Sqm	MR

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
	cement and matching pigment etc., complete.		
5.07	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	8.31
6.00	ARCHITECTURAL STEEL WORKS	-	-
6.01	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	10.28
7.00	ROOFING WORKS with GI PROFILE SHEET	-	-
7.01	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	10.2
7.02	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	12.50
7.03	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Ridges plain (500 - 600mm)	Sqm	12.51.1
7.04	Providing and fixing plain multipurpose cement board(Hight pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately). 6 mm thick Cement fiber board as per IS: 14862	Sqm	12.26.1
7.05	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade. Two or more coats on new work	Sqm	13.61.1

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
8.00	Plumbing Works		
a	Internal water supply & Sanitary Installations		cpwd PAR 2021 2.1
9.00	Internal Electrical Works		
a	Internal electric installations		cpwd PAR 2021 2.3
b	Power Wiring Plugs		cpwd PAR 2021 2.4.1

• Ticketing Booth/office & Souvenir Shop:-

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
1.0	EARTH WORKS		
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.		2.6
	All kinds of soils	Cum.	2.6.1
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum.	2.25
	Anti termite treatment		
1.03	Supplying chemical emulsion in sealed containers including delivery as specified.		2.34
	Chlorpyrifos/ Lindane emulsifiable concentrate of 20%	litre	2.34.1
2.00	CONCRETE WORKS		
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		4.1
	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum.	4.1.8
2.02	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	Sqm	4.17
3.00	STONE WORKS WITH COURSED RUBBLE MASONRY		
3.01	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with : 7.6.1 Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	7.6.1
	Rubble Masonry Below Plinth Level		

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
3.02	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level. 7.8.2 Masonry work (second sort), in cement mortar 1:6 (1 cement:6 coarse sand)	cum	7.8.1
4.00	WOOD & ALUMINIUM WORKS		
4.01	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion		21.1.1
4.02	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	21.1.1.2
	FLUSH DOOR SHUTTER : Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters .		
b	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	9.20.2
4.03	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	sqm	9.23
4.04	Providing & Fixing of Hinges including fixtures complete as approved by engineer in charge.	Each	MR
4.05	Providing & Fixing of Overhead Door Closer including fixtures complete as approved by engineer in charge.	Each	MR
4.06	Providing & Fixing of Door Stops including fixtures complete as approved by engineer in charge.	Each	MR
4.07	Providing & Fixing of Lever Action Flush Bolt including fixtures complete as approved by engineer in charge.	Each	MR
4.08	Providing & Fixing of Floor Bolt Sockets including fixtures complete as approved by engineer in charge.	Each	MR
4.09	Providing & Fixing of Cylinder Locks including fixtures complete as approved by engineer in charge.	Each	MR
4.10	Providing & Fixing of Lever Action Door Handle including fixtures complete as approved by engineer in charge.	Each	MR
4.11	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)		
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	21.1.2.2

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
4.12	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):	sqm	21.3.2
4.13	Providing and fixing horizontal chajja cum lintel of stone 40 mm thick and upto 60 cm projection in cement mortar 1:4 (1 cement : 4 coarse sand), including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : The chajja shall be supported with MS angle & flat in openings as per architectural drawing and design.		
	Red sand stone 40 mm thick	sqm	MR
5.00	FLOORING WORKS		
5.01	40 mm thick fine dressed stone flooring / counter over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints finished flush.		
	Red sand stone	Sqm	11.28.1
5.02	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :25 mm thick	sqm	11.26.1
5.03	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	11.27
6.00	ARCHITECTURAL STEEL WORKS	-	-
6.01	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	10.28
7.00	ROOFING WORKS with GI PROFILE SHEET	-	-
7.01	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	10.2

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
7.02	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	12.50
7.03	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete : Ridges plain (500 - 600mm)	Sqm	12.51.1
7.04	Providing and fixing plain multipurpose cement board(Hight pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately). 6 mm thick Cement fiber board as per IS: 14862	Sqm	12.26.1
7.05	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade. Two or more coats on new work	Sqm	13.61.1
8.00	Internal Electrical Works		
a	Internal electric installations		cpwd PAR 2021 2.3
b	Power Wiring Plugs		cpwd PAR 2021 2.4.1

- **Electrical Room:-**

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
1.0	EARTH WORKS		
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.		2.6
	All kinds of soils	Cum.	2.6.1
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum.	2.25

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
	Anti termite treatment		
1.03	Supplying chemical emulsion in sealed containers including delivery as specified.		2.34
	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	litre	2.34.1
2.00	CONCRETE WORKS		
2.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		4.1
	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum.	4.1.8
2.02	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 coarse sand : 6graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	Sqm	4.17
3.00	STONE WORKS WITH COURSED RUBBLE MASONRY		
3.01	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with : 7.6.1 Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	7.6.1
	Rubble Masonry Below Plinth Level		
3.02	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level. 7.8.2 Masonry work (second sort), in cement mortar 1:6 (1 cement:6 coarse sand)	cum	7.8.1
4.00	WOOD & ALUMINIUM WORKS		
4.01	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion		21.1.1
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	21.1.1.2
4.02	FLUSH DOOR SHUTTER : Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters .		
b	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	9.20.2
4.03	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	sqm	9.23

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
4.04	Providing & Fixing of Hinges including fixtures complete as approved by engineer in charge.	Each	MR
4.05	Providing & Fixing of Overhead Door Closer including fixtures complete as approved by engineer in charge.	Each	MR
4.06	Providing & Fixing of Door Stops including fixtures complete as approved by engineer in charge.	Each	MR
4.07	Providing & Fixing of Lever Action Flush Bolt including fixtures complete as approved by engineer in charge.	Each	MR
4.08	Providing & Fixing of Floor Bolt Sockets including fixtures complete as approved by engineer in charge.	Each	MR
4.09	Providing & Fixing of Cylinder Locks including fixtures complete as approved by engineer in charge.	Each	MR
4.10	Providing & Fixing of Lever Action Door Handle including fixtures complete as approved by engineer in charge.	Each	MR
4.11	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)		
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	21.1.2.2
4.12	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):	sqm	21.3.2
4.13	Providing and fixing horizontal chajja cum lintel of stone 40 mm thick and upto 60 cm projection in cement mortar 1:4 (1 cement : 4 coarse sand), including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : The chajja shall be supported with MS angle & flat in openings as per architectural drawing and design.		
	Red sand stone 40 mm thick	sqm	MR
5.00	FLOORING WORKS		
5.01	40 mm thick fine dressed stone flooring / counter over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints finished flush.		
	Red sand stone	Sqm	11.28.1
5.02	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :25 mm thick	sqm	11.26.1
5.03	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	11.27
6.00	ARCHITECTURAL STEEL WORKS	-	-

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
6.01	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	10.28
7.00	ROOFING WORKS with GI PROFILE SHEET	-	-
7.01	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	10.2
7.02	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	12.50
7.03	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :Ridges plain (500 - 600mm)	Sqm	12.51.1
7.04	Providing and fixing plain multipurpose cement board(Hight pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately). 6 mm thick Cement fiber board as per IS: 14862	Sqm	12.26.1
7.05	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade. Two or more coats on new work	Sqm	13.61.1
8.00	Internal Electrical Works		
a	Internal electric installations		cpwd PAR 2021 2.3
b	Power Wiring Plugs		cpwd PAR 2021 2.4.1
	Electrical room equipment		
7.00	33 kV Receiving Substation and 33kV/11kV HT Cabling		PAR 2021 6.1

ITEM NO	DESCRIPTION OF ITEM	UNIT	REF. DSR 2021/MR
	Supplying, installation, testing and commissioning of 33kV Substation comprising 33 kV HT Panel, transformer 33 kV/11kV, 11 kV HT panel, inter connections, 11 kV HT underground cabling to the distributions on ring main system, substation earthing, substation safety equipment.	per kVA	PAR 2021 6.1.1
8.00	Substation Equipment		PAR 2021 6.2
	Supplying, installation, testing and commissioning of 33kV/0.433kv or 11 kV/0.433 kV Substation equipment comprising HT Panel, dry type-oil type transformer, HT Cable bus trunking from transformer to LT Panel, LT Panel, automatic power factor correction panel, active harmonic filters, TVSS (transient voltage suppression system), SPD (surge protection system), essential panel, earthing, required inter-connection, substation safety equipments including LT cabling from substation to the buildings fed by the substation.	per kVA	PAR 2021 6.2.1

• **Parking:-**

ITEM NO	DESCRIPTION OF ITEM	UNIT	REFERENCE DSR 2021/MR
1.00	PARKING -1 WORKS		
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 Sqm on plan including disposal of excavated earth lead up to 50m and lift up to 1.5m, disposed soil to be levelled and neatly dressed All kinds of soil	cum	2.60
1.02	Providing and laying 500x500x40 mm thick Turf paver (Turf pave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick jamuna sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.	sqm	11.45
1.04	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	16.69

• **HORTICULTURE WORKS-GARDEN:-**

ITEM NO	DESCRIPTION OF ITEM	UNIT	LANDSCAPE DSR 2020/MR/DSR 2021
	Total Garden Area= 2639.10 Sqm		

ITEM NO	DESCRIPTION OF ITEM	UNIT	LANDSCAPE DSR 2020/MR/DSR 2021
1	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20%: one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete	Cum	2.13
a	Providing & laying Selection no. 1 doob grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with required tools wooden and then rolling the surface with light roller make the surface smoothen and light watering the same maintenance for 30 days or more till the grass establish properly, as per direction of officer in charge	Sqm	Hor & Land DSR 2020 2.34
2	Filling of the Polythene bags by mixture of good earth and manure in the ratio of 2:1 (2 part of good earth and 1 part of the manure) and placing the same of appropriate place all complete as per direction of the Officer in-charge.		
a	Polythene bags size 12.5 cm dia x 17.5 cm height	Each	2.32.1
b	Polythene bags size 15 cm dia x 20 cm height	Each	2.32.2
c	Polythene bags size 20 cm dia x 25 cm height	Each	2.32.3
d	Polythene bags size 20 cm dia x 30 cm height	Each	2.32.4
e	Polythene bags size 25 cm dia x 35 cm height	Each	2.32.5
f	Polythene bags size 30 cm dia x 30 cm height	Each	2.32.6
3	Cutting of Hedge/Edge including removing of cut material, cleaning, hoeing of hedge/edge bed watering, manureing and applying insecticides and fungicides etc. and as per direction of officer in charge.	Per sqm per Month	2.36
4	Cutting of designer hedge/edge removing of cut materials, cleaning, hoeing of hedge/edge bed watering manure and applying insecticides and fungicides etc. and as per direction of officer in charge	Per sqm per Month	2.37
5	Topiary cutting/shapping of plant removing of cut materials, cleaning, hoeing of plants complete design hoeing of trees (Topiary) watering manure etc. and as per direction of officer in charge.		2.38
a	Height of Topiary upto 120 cm.	Per plant per Month	2.38.1
b	Height of Topiary above 120 cm.	Per plant per Month	2.38.2
6	Providing and applying anti termite treatment of infected trees i/c all branches/leaves by spraying chemical emulsion 0.5% (Chlorpyrifos 20% EC) concentration through power spray machine (@ 100 ml Chlorpyrifos per tree i/c cost of chemical) and as per direction of officer-in-charge. And as per direction of officer-in-charge.	Each Tree	2.55

ITEM NO	DESCRIPTION OF ITEM	UNIT	LANDSCAPE DSR 2020/MR/DSR 2021
7	Anti-termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge.and as per direction of officer-in-charge.	Per Sqm	2.56
8	Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant & water)		
a	Trees Plant	Each	2.57.1
b	Shrubs Plant	Each	2.57.2
c	Hedge Plant /Ground cover	Each	2.57.3
9	Providing and fixing of Tuflex Garden fencing Hexagonal net/or equivalent of green colour having contents (Weight grams/sqm. 510 (+/- 8%)) in width of 60 cm. with bamboo of 90 cm. length. The bamboo should be painted with green colour paint of approved brand and manufacture (two or more coats) and fixed 30 cm. below ground level and 60 cm. above ground level at a distance of 1.50 mtrs. The net and bamboo should be binded with 2 mm. G.I. Wire at three places properly as per direction of Engineer-in-charge. (400Sqm)	Sqm	2.58
10	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan), including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, as per directions of Engineer in In charge. 2.6.1 All kinds of soil	Cum	2.6
	Trees		
	Dalbergia Sissoo	Nos.	10
	Melia Azedarach	Nos.	9
	Peltophorum Pterocarpum	Nos.	8
	Thespesia Populnea	Nos.	17
	Delonix Regia	Nos.	21
	Mangifera Indica	Nos.	30
	Bambusa Vulgaris	Nos.	30
	Pumberia Obtusa	Nos.	6
	Azadirachta Indica	Nos.	12
	Bauhinia Variegata	Nos.	11
	Schleichera Oleosa	Nos.	16
	Tamarindus indica	Nos.	24
	Psidium guajava	Nos.	30
	Callistemon viminalis	Nos.	24
	Jacaranda mimosifolia	Nos.	27
	Mimusops elengi	Nos.	16
	Cassia Fistula	Nos.	13
	Musaceae banana	Nos.	8
	Butea Monosperma	Nos.	15
	Citrus Lemon	Nos.	20

• **HORTICULTURE WORKS-PARK:-**

ITEM NO	DESCRIPTION OF ITEM	UNIT	LANDSCAPE DSR 2020/MR/DSR 2021
	Total Park Area= 937.67 Sqm		
1	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20%: one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete.	Cum	2.13
2	Filling of the Polythene bags by mixture of good earth and manure in the ratio of 2:1 (2 part of good earth and 1 part of the manure) and placing the same of appropriate place all complete as per direction of the Officer in-charge.		
a	Polythene bags size 12.5 cm dia x 17.5 cm height	Each	2.32.1
b	Polythene bags size 15 cm dia x 20 cm height	Each	2.32.2
c	Polythene bags size 20 cm dia x 25 cm height	Each	2.32.3
d	Polythene bags size 20 cm dia x 30 cm height	Each	2.32.4
e	Polythene bags size 25 cm dia x 35 cm height	Each	2.32.5
f	Polythene bags size 30 cm dia x 30 cm height	Each	2.32.6
3	Anti termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge.and as per direction of officer-in-charge.	Per Sqm	2.56
4	Pruning, trimming, shaping of trees /shrubs (ht 15 feet and above) i/c removal of cut materials upto 50mt. Lead, as per direction of officer in charge. T&P shall be arranged by the contractor.	Each Tree	2.61
5	Lump Sum Cost for Shrubs, Flower, Hedges including transportation from near nursery to Barkakna Site etc.		
6	Children playing Equipment's (08nos)		

• **Electrical & Mechanical Works:-**

Referen cePAR 2021/DS R 2021/MR	DESCRIPTION OF ITEMS	UNIT	AREA/QU ANTITY
	Services (As per PAR 2021)		
PAR 2021 2.2.1	External Electrical Services		
MR	Distribution pipe line upto 50 mm dia (Internal) with provision of taps & valves as per requirement (600m -PE100 -PN10)	Per Metre	For whole Park
PAR	Trench for services	Per	15.00

Referen cePAR 2021/DS R 2021/MR	DESCRIPTION OF ITEMS	UNIT	AREA/QU ANTITY
2021 5.7		Metre	
MR	Supplying and installation of 12.5 h.p. coupled pumping set with electronic controller make like KSB/ kirlosker etc. or equivalent, making connections suitable for T.W/ D.C.B./ open well. The job includes screwing and welding of flanges on GI B-class riser pipes, installation of complete fittings and accessories with riser pipes, jointing of electrical cable and other connections. Layout of the same along with details of product is to be got approved by engineer.	Each	2.00
MR	Supply and erection of Hot Dip Galvanized octagonal pole of 3 mm thickness 7 Mtr. Long pole with top dia 70 mm and bottom dia 130 mm with base plate of size 220 x 220 x 12 mm, including cost of nut and bolts and all accessories as supplied by the manufacture including cost of foundation accessories etc. the foundation bolts as per manufacturer design should be hot dipped galvanized pole complete with door locking arrangement, Terminal plate consisting of 2 nos. 100 A, 4 pole natural links including connection etc. with suitable connecting arrangement for 2 nos. MCBs/ kit-kat including cost of RCC 1:1.5:3 for foundation of size 0.7 m x 0.7 m x 1.8 m with minimum 8 nos. 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C. for fixing the pole with all labour & material required to complete the job in all respect upto the entire satisfaction of Engineer - In-Charge of the work	nos	2.00
MR	Supply, installation, Testing & commissioning of LED type IP- 65 and above, 120W Street Light Fitting as per technical specification enclosed. With Free Replacement Guarantee- 5 years as per the specification.	nos	4.00
MR	3 mtr Two step pole GI PU painted along with the foundationn pole	nos	15.00
MR	Kesslec make AIO (All in One) Solal street light. Designed to be freely mounted on standard octagonal /tubular decorative pole for street light application. Disintegrated unit houses the solar module as the free source of energy, powerful lithium based battery to store the generated solar energy in the day and complete power management electronics to process the energy for effective use. It also has on integrated power LED driver and a LED module as the light source. This intelligent unit senses "Dusk and Dawn" to automatically provide lighting only at night and movement around it's vicinity. During any motion, the system automatically gives out bright lighting power to illuminate the surrounding and whenever there is no motion detected, the motion sensor automatically dims the lighting. Technical data – System wattage 24W, Efficacy 120LM/W, CCT 5700K, IP rating – IP66, LED Lifetime L70, 50000 hours @ TA 25 Degrees. Power source, renewable energy- solar power. Fitting dimension 655mm x345mmx55mm, Working temperature -10 degrees centigrade to +50 degrees centigrade. Product country of origin – designed and manufactured in India. Solar panel 40WP, mono PB module tested as per IEC61215 and IEC61730. Battery 12AH, 12.8V rechargeable life PO4 (Lithium phero phosphate) BIS approved and IEC tested.	nos	15.00
6.10	CCTV System		

Referen cePAR 2021/DS R 2021/MR	DESCRIPTION OF ITEMS	UNIT	AREA/QU ANTITY
6.10.1	Supplying ,installation, testing and commissioning of IP based CCTV system for building security comprising of PTZ/fixed camera, cabling, digital recording, HD display system with minimum display of 5"x8" per camera and hardware software support for indoors only { Rate applicable on total plinth area but CCTV Coverage shall be limited to 15% of the total plinth area as requirements.	Per Sqm	181.73
	Solar Photo Voltaic Power generation System		
PAR 2021 6.8.1	Supplying, installation, testing and commissioning of grid interactive roof top solar photo voltaic power generation system space frame.	Per KWp	10.00

• Misc. Civil Works:-

ReferencePAR 2021/DSR 2021/MR	DESCRIPTION OF ITEMS	UNIT	Nos.
23.2	Boring/drilling 300 mm dia bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 200 metre depth below ground level. All types of soil.		
23.2.1.1	300mm dia	Metre	
23.3.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge. 200 mm nominal size dia.	Rm	
MR	Supply, installation of HDPE pipe 2" & SS Sefty wire suitable for submersible Pump,as per design & direction of Engineer-in-charge. .	RM	
MR	Supply, installation, testing and commissioning of continuous duty submersible Pump suitable for lifting water from 200 mtr 12.5 HP for 3 phase motor with all necessary protection and mechanical seal etc. and 3 phase starter .	each	01
2.6	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.		
2.6.1	All kinds of soils		
	Septic tank excavation for 10000 ltr.	Cum.	
	Water tank excavation	Cum.	
MR	Providing & Installation Automatic Green FRP Bio Digester For 10000 Ltr Septic Tank including bio digester microorganisms.	Each	01
	Water Tank of size 3m x 3m x 3m		

ReferencePAR 2021/DSR 2021/MR	DESCRIPTION OF ITEMS	UNIT	Nos.
5.9.2	Centring & Shuttering of Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc. Wall of Sump	Sqm	
5.9.3	Centring & Shuttering of Suspended floors, roofs, landings, balconies and access platform for sump	Sqm	
5.33.1	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge.		
	(A) Raft M-25	Cum	
	(B) Wall M-25	Cum	
	(C) Roof Slab M-25	Cum	
5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more. For sump	Kg	
13.7.1	Cement plaster 1:4 (1 cement: 4 coarse sand) finished with a floating coat of neat cement : 12 mm cement plaster		
	B) Water tank wall	Sqm	
	C) Water tank Ceiling & bottom	Sqm	
22.23	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.		
22.23.1	For vertical surface two coats @ 0.70 kg per sqm	sqm	
22.23.2	For horizontal surface one coat @ 1.10 kg per sqm.	sqm	
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and		

ReferencePAR 2021/DSR 2021/MR	DESCRIPTION OF ITEMS	UNIT	Nos.
	shuttering - All work up to plinth level :		
4.1.8	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum.	
	Septic tank PCC for 10000 ltr.		

• **Misc. Work:-**

Item No.	Description	Unit	No.
1	Gazebo		02
	Anti Termite Treatment		
	Anti termite treatment by digging holes 30 cm deep and 4 cm dia, 6 to 7 holes around the Column using chemical emulsion at the rate of 1.5 liter per hole in two time or more application to get the trees free from termite infection chemicals used Chlorpyriphos 20% EC in the ratio of 1% concentration and as per direction of officer-in-charge.		
	Anti-termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge.and as per direction of officer-in-charge.	Sqm	
	Construction of circular shape gazebo having 12 sqm Plinth Area by using different variety of Engineered Bamboo Composite made from pre-treated matured bamboo as per engineer-in-charge.	Each	02
2	Resting Point with Benches		
a	Amenities Building Furnitures	Nos	05
b	Bamboo/wooden/stone Furnitures	Nos	25
	Anti Termite Treatment for Bamboo Chairs		
	Anti termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge.and as per direction of officer-in-charge.	Sqm	
3	Visual green/mound		
Lanscaping DSR 2020 2.28	Preparation of mounds of various size and shape by available excavated / supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of each layer, dressing etc., lead upto 50 meter and lift upto 1.5 m complete as per direction of Officer-in-charge.	cum	As per Area Chart
4	Agri Land & Herbal Garden		
	Agri-Land - Lemon Grass Farming	Sqm	302.96
	Agri-Land - Sunflower Farming	Sqm	239.63
Lanscaping DSR 2020 2.2	Supplying and stacking of selected good earth for horticulture work at site including royalty and carriage up to 10 km(earth measured in stacks will be reduced by 20% for payment)	Cum	
Lanscaping DSR 2020 2.8	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Officer-in-charge (Cost of sludge, dump manure and / or good earth to be paid separately).	Cum	
Lanscaping DSR 2020 2.9	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge.	Cum	

Item No.	Description	Unit	No.
Lanscaping DSR 2020 2.20	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and levelling (cost of supplying earth and sludge or manure and mixing excluded).	Cum	
5	Green House (MS Structure with polycarbonate sheet shed)	Sqm	As per Area Chart
6	Nursery Bed		
	Providing and fixing of Green Garden fencing net with bamboo of 100 cm. length and fixed 30 cm. below ground level and 60 cm. above ground level at a distance of 1.50 mtrs. The net and bamboo should be binded with 2 mm. G.I. Wire at three places properly as per direction of Engineer-in-charge	Sqm	413
	Supplying, Stacking & Spreading of sludge, manure in required thickness as per direction of officer-in-charge.	cum	
	Plantation of different type of seasonal flowers.	cum	As per Area Chart
7	Compost Pit		
a	Construction cost of Bio Compost (Aerobic Composting) with including required material Green matter, worms, Dried Leaves/Paddy Straw, Fresh Cow Dung, Water) etc. as per Requirements.	Sqm	As per Area Chart
8	Open Gym/Exercise Area		
	Supplying and fixing 6 nos of Gym equipments (Elliptical Cross Trainer, Arm & Paddle Bike, Skiing Machine, Leg Press, Double Waist Twister, and Fitness Rider) including cost of foundation.	Sqm	
9	Collection Pond	Sqm	
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 Sqm on plan including disposal of excavated earth lead up to 50m and lift up to 1.5m, disposed soil to be levelled and neatly dressed All kinds of soil	cum	
	Supplying and laying of HDPE Plastic Sheet of thickness 0.7mm over SN20 Non-woven Geotextile Polyester on well dressed and rammed earth.		
10a	Pathways (With Plantation on Both edge)		As per Area Chart
2.36	Extra for neatly dressing, levelling & Compacting of disposed soil completely as directed by Engineer-in-charge. 1.5m, disposed soil to be levelled and neatly dressed All kinds of soil	Cum	
16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarser sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not be more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	
16.6	Supplying, stacking and Spreading 6 mm thick red bajri, watering and rolling complete including preparation of the surface and		

Item No.	Description	Unit	No.
	rolling. (50mm)		
16.6.1	With road roller/ hand roller	sqm	
10b	Natural Trail		
2.36	Extra for neatly dressing, levelling & Compacting of disposed soil completely as directed by Engineer-in-charge. 1.5m, disposed soil to be levelled and neatly dressed All kinds of soil	Cum	As per Area Chart
11	Picnic Lawn		
Hor & Land DSR 2020 2.34	Providing & laying Selection no. 1 doob grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with required tools wooden and then rolling the surface with light roller make the surface smoothen and light watering the same maintenance for 30 days or more till the grass establish properly, as per direction of officer in charge	Sqm	As per Area Chart
12	Feature Wall	Each	1
13	FRP Dustbins with metal stand	Each	10
14	Sculpture	Each	5

- **Operation & Maintenance:-**

Description	REFERENCE DSR 2021/PAR2021
Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, edge, flower beds, foliage's, creepers etc. including hoeing, weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mower and brush cutter, removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and manure and maintenance of other garden related works as directed by office-in-charge	Horticulture DSR 2020 2.39
Play grounds / Public parks (1Mali for 2.00Acre). (Per sqm /Per Month). For Area 2639.10+937.67 sqm. (Botanical Garden, Edible Garden, Flower Garden, Herbal Garden, Topiary, Maze Garden)	2.39.5
For open spaces. (1 mali for 3 acre) (Per sqm /Per Month). For Area 10732.35 sqm (Visual green, gym area, collection pond, pathways, picnic lawn, orchard, Green buffer)	2.39.6
Cost of miscellaneous and other works as per the direction of Engineer-in-charge for 5 years.	

Preparation and resurfacing of standard-sized planting beds, providing H.D. Polythene bags with filling up of manure mixed earth in polybags including pounding after filling, Cost of cow dung including transportation. Cost of fauna proof fencing net including cost of wooden fencing posts, erecting, fixing, fitting, etc. Complete and including cost of staples. Cost of sowing including hoeing mulching etc., Cost of pricking and transplanting of seedlings from Germination beds to polybags. Cost of construction of shades for protection of seedlings from frost during winter and direct sunlight in warm areas, Cost of weeding, (4 times weeding in a year). Cost of fungicide, tools & plants, making of inspection path, fertilizers, chemicals, lime, pesticides/ insecticides, growth hormones, etc. Sowing of seeds including hoeing of soil and covering of seeds. Planting of Nursery seedling including carriage from Nursery centres to plantation, etc. complete (for plantation raised by Nursery seedling only). Weeding, Cleaning of areas from organic matter, collecting it and dumping it to the compost pit for manuring. Fire line clearance including controlled burning from November in the creation year to April of the following years. Cost of Seeds including carriage charge, all including material & labour charges as per the direction of engineer-in-charge.	
Survey & demarcation including fixing of boundary marks at strategic points Jungle Clearance burning, land preparation including staking, pit digging, hoeing, etc. (i) Construction of Site Office (ii) Construction of inspection path (iii) Procurement of tools and plant. Cost of collection of seeds (In case of plantation created through seed origin. If the Plantation is to be created by Eco Park seeding this item shall be executed)	

Note:

There may be some items that are required to be executed for the completion of Project in all respect as per the approved Drawings and that is not given in above tables. The same shall be in the scope of the contractor and no extra shall be paid in this regard.

The GFC drawings for execution of project shall be issued and one revised of the same shall be revised or modified based on site condition/ as per requirement of CCL/WAPCOS & same should be implemented by the contractor without any extra cost.

1) Proposal for Amenities

The various amenities proposed on the site include Pathways development, parking, rest rooms, food court, and commercial shops. Also, includes the development of a park complex as per the existing contour, circulation connecting different amenities with the park complex, gardens for different age groups, a statue complex with sculpture garden, and picnic spots. The particular project implementation includes design and execution of all kinds of hardscape and softscape work.

- Development of Green Houses, theme-based garden, Visual Greens, Green Buffer, Green Area, Pavilion, Featured wall and Nursery bed etc

- Developing parking & Internal Paths/Pathways.
- Rest Room, Ticketing Booth/Office, Souvenir Shop, Cafeteria, guard room, along with boundary fencing, drains, etc
- Development of ecosystem by adopting suitable measures like honey bee farming, fish farming, food processing plant, etc.
- Provisions of Rainwater harvesting, Bio-Compost/Vermi-compost and installation of solar panels
- Installation of CCTV System, Solar Power generation System
- Landscaping, horticulture, floriculture, any suitable revenue generating endemic plantation including 5 years maintenance
- Electrical works - Appropriate Illumination of Whole Park.

2) Landscape/Horticulture:

Plantation of ground covers, shrubs, plantation of native trees, water tolerant trees, fast growing trees, fruit bearing trees etc. selected as per the specification. Lawn in parks and grassing as per the defined location.

8.0 SPECIFICATIONS FOR PLANTING

1) PLANT MATERIAL

Providing and display of following plant material details as given below. All supplied plants are well developed and well formed, bushy and healthy

LIST OF TREES, SHRUBS AND GROUND COVER as detailed in the specifications

2) CUTTING & REMOVING OF WILD VEGETATIONS

The item includes cutting of wild vegetations, bushes/grasses, seasonal/perennial weeds etc. from ground level, collecting and stacking the same in heaps at least 10 metres away from the place of working so as to give a neat and clean appearance complete as directed by Head, Horticulture dept.

3) APPLICATION OF WEEDICIDE/HERBICIDE

The item includes spraying of weedicide/herbicide by deploying trained manpower using manual(knapsack)spray pumps in desired concentrations by properly mixing to form uniform solution on foliar plant parts/vegetations using water as media including arranging water from within campus at site for use. Spraying at site shall be carried in the wind direction to avoid any body contact following safety precautions like use of mask/gloves, goggles etc during spray operation preventing any accident /health hazard.

Note:

1. Department shall not responsible for any injuries/disorders arising out of misuse/mishandling of weedicide and equipment put to use.
2. The contractor shall keep the record of weedicide issued by the Department updated

3. The contractor shall carry out spray operation on site identified by Head, Horticulture Cell. Measurements Payments shall be based on the herbicide/weedicide issued by dept.& consumed by contractor at the site of work from time to time correct to 0.001 Litre. Rate The rate shall include the cost of all the labour and material involved in all the operations described above including cost towards safety measures, transportation of water, cost of spray pumps, buckets etc.

4) MANURES AND FERTILISERS

Dry sludge or Cow dung or similar shall be used. Measurement of manure shall be in stacks with 8% reduction for payment. It shall be free from extraneous matter harmful Bacteria, insects or chemicals. Supply of Garden soil mix (Garden soil, Sand and manure in the ratio 3:1:1).

COW DUNG MANURE- Supplying and stacking cow dung manure at site including royalty and carriage

5) PLANTING PROCESS

EXCAVATION:

Trees should be supplied with adequate protection as approved after delivery. If planting is not to be carried out immediately, balled plants should be placed cheek to cheek and the ball covered with sand to prevent drying out. Bare rooted plants can be heeled in by placing the roots in a prepared trench and covering them with earth which should be watered in to avoid air pockets around the roots.

Excavation of Pits/beds of desired shape& size in ordinary soil up to a depth of 1mt. in soil/murum by staggering serviceable material and removing Stones, brick bats, unsuitable earth and other rubbish, all roots and other undesirable growth stacked/spread for disposal up to 50 meters. Good earth in quantities as required to replace such discarded stuff shall be unloaded at site by the contractor which shall be paid for separately. The tree beds/pits shall be back filled with farm yard manure/fertilizers/pesticides by uniformly mixing with the soil in the specified proportion, to the level of adjoining ground and then profusely watered to enable the soil to subside the refilled soil shall then be dressed evenly with its surface about 50 to 75 mm below the adjoining ground level complete as directed by the Head, Horticulture Cell. Measurements: Length, breadth and depth of excavated pits/beds shall be measured correct to a cm and the volume of pit shall be calculated in cubic meter. Correct to two places of decimal, to be paid on back filling as per above.

DIGGING OF PITS FOR TREES, SHRUBS AND GROUND COVER

FOR TREES- Pits of size 750 mm x 750 mm x 750 mm filled with 50% of mother earth and balance 50% filled with a mixture of garden soil, manure and sand in the ratio of 3:1:1. Rate to include supply of tree species (Rate does not include supply of garden soil, manure and Sand which is separately quoted for) labour charges for pitting, mixing soil media, filling the pits with soil media, maintenance for a period of 90 days from planting.

FOR SHRUBS- Pits of size 300 mm x 300 mm x 300 mm filled with 50% of mother earth and balance 50% filled with a mixture of garden soil, manure and sand in the ratio of 3:1:1. Rate to include supply of Shrub species of average height. Rate does not include supply of garden soil, sand and manure which is separately quoted for, labour charges for pitting, mixing soil media, filling the pits with soil media, planting the sapling, maintenance for a period of 90 days from planting.

FOR GROUND COVERS- Pits of size 250 mm x 250 mm x 250 mm filled with 50% of mother earth and balance 50% filled with a mixture of garden soil, manure and sand in the ratio of 3:1:1. Rate to include supply of ground cover species of average height. Rate does not include supply of garden soil, sand

and manure which is separately quoted for, labour charges for pitting, mixing soil media, filling the pits with soil media, planting the sapling, maintenance for a period of 90 days from planting.

GRASSING FOR LAWN- Dibbling of Bermuda grass - Garden soil is to be spread on garden surface up to a depth of 50mm and mixed with manure and Sand to attain a total depth of 75mm to form the final garden surface. Surface preparation is by raking and mixing to attain a smooth finished surface and planted with rooted slips of the specified Grass species, maintenance for a period of 90 days from planting.

BACKFILLING

The soil is backfilled, watered through and gently pressed down; a day previous to planting to make sure that it may not further settle down after planting. The soil shall be pressed down firmly by treading it down, leaving a shallow depression all round for watering.

PLANTING

No tree pits shall be dug until final tree position have been pegged out for approval.

Care shall be taken that the plant sapling when planted is not buried deeper than in the nursery or in the pot.

Planting should not be carried out in water logged soil. It is most important to plant trees at the original soil depth; the soil mark on the stem is an indication of this and it should be maintained on the finished level allowing for setting of the soil after planting. All plastic and other imperishable containers should be removed before planting. Any broken or damaged roots should be cut back to sound growth.

The bottom of the planting pit should be covered with 50mm to 75mm of soil. Bare roots should be spread evenly in the planting pit; a small mound in the centre of the pit on which the roots are placed will aid an even spread. Soil should be placed around the roots, gently snaking the tree to allow the soil particles to shift into the root system to ensure close contact with all roots and to prevent air pockets. Backfill soil should be firmed as filling proceeds layer by layer care being taken to avoid damaging the roots. Organic material should be applied, according to soil requirements.

STAKING

Newly planted trees must be held firmly although not rigidly by staking to prevent a pocket forming around the system and newly formed fibrous roots being broken by mechanical pulling as the tree rocks.

Methods:

The main methods of staking shall be:

- A single vertical stake 900mm longer than the clear stem of the tree, driven 600mm to 800mm into the soil.
- Two stakes as above driven firmly on either side of the tree with a cross-bar to which the stem is attached. Suitable for bare - rooted or balled material.
- A single stake driven in at an angle of 45 degrees and leaning towards the prevailing wind, the stem just below the lowest branch being attached to the stake. Suitable for small bare – rooted or balled material.

- For plant material 3m to 4.5m high with a single stem a three-wire adjustable guy system may be used in exposed situations.
- The end of stake should be pointed and the lower 1m to 1.20m should be coated with a non-injurious wood preservative allowing at least 150mm above ground level.

TYING

- Each tree should be firmly secured to the stake so as to prevent excessive movement. Abrasion must be avoided by using a buffer, rubber or hessian, between the tree and stake.
- The tree should be secured at a point just below its lowest branch, and also just above ground level; normally two ties should be used for each tree. These should be adjusted or replaced to allow for growth.

WATERING

- The contractor shall allow for the adequate watering in of all newly planted trees and shrubs immediately after planting and he shall during the following growing season, keep the plant material well-watered.
- All shrubs which are supplied pot grown shall be well soaked prior to planting.
- Watering in and subsequent frequent watering of summer planted container - grown plants is essential.

6) SHRUB PLANTING IN PLANTERS AND BEDS

All areas to be planted with shrubs shall be trenched to a depth of 600mm. Tall shrubs may need staking; which shall be provided if approved by the Contracting Architect, depending upon the conditions of individual plant specimen. Shrubs and ground cover shrubs in beds and planters. Positions of shrubs to be planted shall be marked out in accordance with the planting plan. Shrubs are set out; precautions should be taken to prevent roots drying.

Planting holes 40cm dia and 40cm deep should be excavated for longer shrubs. Polyethene and other non-perishable containers should be removed and any badly damaged roots carefully pruned. The shrubs should then be set in holes so that the soil level, after settlement, will be at the original soil mark on the stem of the shrub. The hole should be backfilled to half its depth and firmed by treading. The remainder of the soil can then be returned and again filled by treading.

7) GRASSING

PREPARATION

During period prior to planting the ground shall be maintained free from weeds.

Grading and final levelling of the lawn shall be completed at least three weeks prior to the actual sowing. Regular watering shall be continued until sowing by dividing the lawn area into portion of approx. 5mts. square by constructing small bunds to retain water. These bunds shall be levelled just prior to sowing of grass plants. At the time of actual planting of grass, it shall be ensured that the soil has completely settled.

SOIL

The soil itself shall be ensured to the satisfaction of landscape Architect to be a good, fibrous loam, rich in humus.

SOWING THE GRASS ROOTS

Grass roots (Cynodon dactylon or a local genus approved by the landscape architect) shall be obtained from a grass patch, seen and approved beforehand.

The grass roots stock received at site shall be manually cleaned of all weeds and water sprayed over the same after keeping the stock in a place protected from sun and dry winds.

Grass stock received at site may be stored for a maximum of three days. In case grassing for some areas is scheduled for a later date fresh stock of grass roots shall be ordered and obtained.

ROLLING

A light roller shall be used periodically, taking care that the lawn is not too wet and sodden.

EDGINGS

These shall be kept neat and must be cut regularly with the edging shears

FERTILIZING

The lawn shall be fed once a month with liquid manure prepared by dissolving 45 grams of ammonia sulphate in 5 litres of water.

WATERING

Water shall be applied daily during dry weather. Watering whenever done should be thorough and should wet the soil at least up to a depth of 20 cms.

WEEDING

Prior to regular mowing the contractor shall carefully remove rank and unsightly weeds.

9.0 MAINTENANCE

GENERAL

The landscape contractor shall maintain all planted areas within the landscape contract boundaries until the period of five year after the complete plantation. Maintenance shall include replacement of dead plants. Watering, weeding, cultivating, control of insects, fungicide and other diseases by means of spraying with an approved insecticide or fungicide, pruning and other horticulture operations necessary for the proper growth of the plants and for keeping the landscape sub- contract area neat in appearance.

PRUNING & REPAIRS

Upon completion of planting work on the landscape sub-contract all trees should be pruned and all injuries repaired where necessary. The amount of pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches and to compensate for the loss of roots and the results of transplanting operations. Pruning shall be done in such a manner as not to change the natural habit or special shape of the trees.

NURSERY STOCK

Planting should be carried out as soon as possible after reaching site. Where planting must, of necessity, be delayed, care should be taken to protect the plants from pilfering or damage from people or animals. Plants with bare roots should be heeled in as soon as received or otherwise protected from drying out, and others set closely together and protected from the wind. If planting should be unpacked, the bundles opened up and each group of plants heeled in separately and clearly labelled. If for any reason the surface of the roots becomes dry the roots should be thoroughly soaked before planting.

MAINTENANCE (for 5 years)

- Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, edge, flower beds, foliage's, creepers etc. including hoeing, weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mower and brush cutter, removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and manure and maintenance of other garden related works as directed by office-in-charge

(Botanical Garden, Green Buffer, Edible Garden, Sensory Garden, Flower Garden, Herbal Garden, Topiary, Zen Garden, Maze Garden), **(3 mali Per Month)**

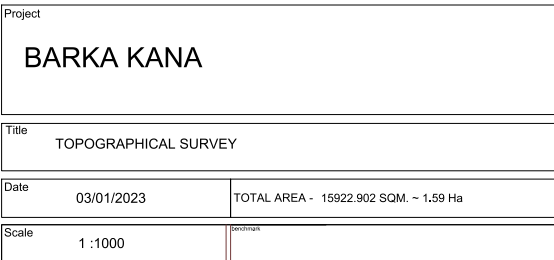
(Bamboo Park, Forest Park, Children's Park, Bird's Park, Butterfly Park, Yoga & Meditation Lawn, Arrival Court Green Area, Multipurpose Ground), **(3 mali Per Month)**

- Preparation and resurfacing of standard-sized planting beds, providing H.D. Polythene bags with filling up of manure mixed earth in polybags including pounding after filling, Cost of cow dung including transportation. Cost of fauna proof fencing net including cost of wooden fencing posts, erecting, fixing, fitting, etc. complete and including cost of staples. Cost of sowing including hoeing mulching etc., Cost of pricking and transplanting of seedlings from Germination beds to polybags. Cost of construction of shades for protection of seedlings from frost during winter and direct sunlight in warm areas, Cost of weeding, (4 times weeding in a year). Cost of fungicide, tools & plants, making of inspection path, fertilizers, chemicals, lime, pesticides/ insecticides, growth hormones, etc. Sowing of seeds including hoeing of soil and covering of seeds. Planting of Nursery seedling including carriage from Nursery centres to plantation, etc. complete (for plantation raised by Nursery seedling only). Weeding, cleaning of areas from organic matter, collecting it and dumping it to the compost pit for manuring. Fire line clearance including controlled burning from November in the creation year to April of the following years. Cost of Seeds including carriage charge, all including material & labour charges as per the direction of engineer-in-charge.

SECTION– VIII

TENDER DRAWINGS OF THE PROJECT

SECTION– VIII: TENDER DRAWINGS OF THE PROJECT



Project	
BARKA KANA	
Title	
TOPOGRAPHICAL SURVEY	
Date	03/01/2023
TOTAL AREA = 15022.902 SQM ~ 1.29 Ha	
Scale	1:1000

- ### GENERAL NOTES :
1. THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
 2. ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BETWEEN COMMENCEMENT OF WORK ON SITE.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNER'S SPECIFICATIONS AND CONDITIONS OF CONTRACT.
 4. ALL DIMENSIONS ARE IN MM
 5. ALL LEVELS ARE IN IN
 6. ALL DIMENSIONS ARE TO BE READ NOT SCALED.
 7. ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
 8. FINISHED DIMENSIONS ONLY ARE TO BE USED ALL DIMENSIONS MUST BE TO BE USED ALL DIMENSIONS DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO ARCHITECT.
 9. WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

KEY PLAN

REVISION LOG			
REVISION	DATE	BY	DESCRIPTION

PRINT ISSUE LOG				
Sr. No.	PRINT ISSUE LOG	FOR	DATE	NO

☐ FOR REFERENCE	☐ FOR SUPPLIERS
☐ FOR TENDER	☐ FOR APPROVAL
☐ FOR ESTIMATION	☐ FOR CONSTRUCTION

FOR TENDER PURPOSE

NOTE:

1. The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
2. All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
3. Built up area of all facilities shall be as specified in the scope of work.
4. The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT:

CENTRAL COALFIELDS LIMITED (CCL)

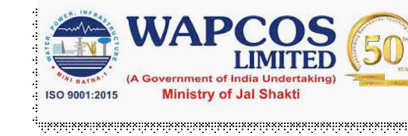


PROJECT:

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO
PARKS AT 09 DIFFERENT AREAS IN JHARKHAND.

EXECUTING AGENCY :

WAPCOS Limited



ARCHITECT :

MASTERPLANNING ARCHITECTURE DESIGN

STUDIO DRA DELHI LONDON
D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120)4246175 delhi@studiodra.com

STAGE :	DRAWN BY :	CHECKED BY :	NORTH :
TENDER	MEC	KH	N 
SCALE @ A0	SCALE @ A1	DATE :	
	1:400	03.05.2023	

DRAWING TITLE

BARKAKANA ECO PARK
SURVEY PLAN

BKEP_LD_SP_01

CATEGORY -	
------------	--

REV NO :



LEGEND:

1. ENTRY/EXIT

2. GUARD HOUSE/ TICKETING BOOTH

4. DROP OFF

5. FEATURE WALL

6. VISUAL GREEN

7. PARKING

8. PAVILION

9. SOUVENIR SHOPS

10. ENTRANCE PLAZA

11. RESTROOM

12. OUTDOOR SEATING

13. CAFETERIA

14. MULTIPURPOSE GROUND

16. CHILDREN'S PARK

17. PICNIC GROUND

18. RESTING POINT

20. MOUND

21. SCULPTURE GARDEN

22. ORCHARD (MANGO)

23. GAZEBO/DECK

24. OPEN GYM

25. TOPIARY GARDEN

26. NURSERY BED

29. SENIOR CITIZEN PARK
30. FLOWER BED

32. ORCHARD (IMLI)

33. ORCHARD (GUAVA)

34. ORCHARD (BANANA)

35. MAZE GARDEN

36. ECOTRAIL/Pathway

37. COLLECTION POND

38. EDIBLE GARDEN

39. HERBAL GARDEN

40. COMMON STORE FOR AGRI PRODUCTS

41. BIO COMPOST PIT

42. VERMI COMPOST PIT

43. GREEN HOUSE

44. GREEN BUFFER

45. YOGA & MEDITATION ZONE

48. ESS & D.G SETS SOLAR PANELS

GENERAL NOTES :

1. THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
2. ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
4. ALL DIMENSIONS ARE IN MM
5. ALL LEVELS ARE IN MM
6. ALL DIMENSIONS ARE TO BE READ NOT SCALED.
7. ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
8. FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE. ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
9. WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

KEY PLAN

REVISION LOG

REVISION	DATE	BY	DESCRIPTION

PRINT ISSUE LOG

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

☐ FOR REFERENCE	☐ FOR SUPPLIERS
☐ FOR TENDER	☐ FOR APPROVAL
☐ FOR ESTIMATION	☐ FOR CONSTRUCTION

FOR TENDER PURPOSE :

NOTE:

1. The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
2. All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
3. Built up area of all facilities shall be as specified in the scope of work.
4. The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT :

CENTRAL COALFIELDS LIMITED (CCL)



PROJECT :

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO PARKS AT 09 DIFFERENT AREAS IN JHARKHAND.

EXECUTING AGENCY :

WAPCOS Limited

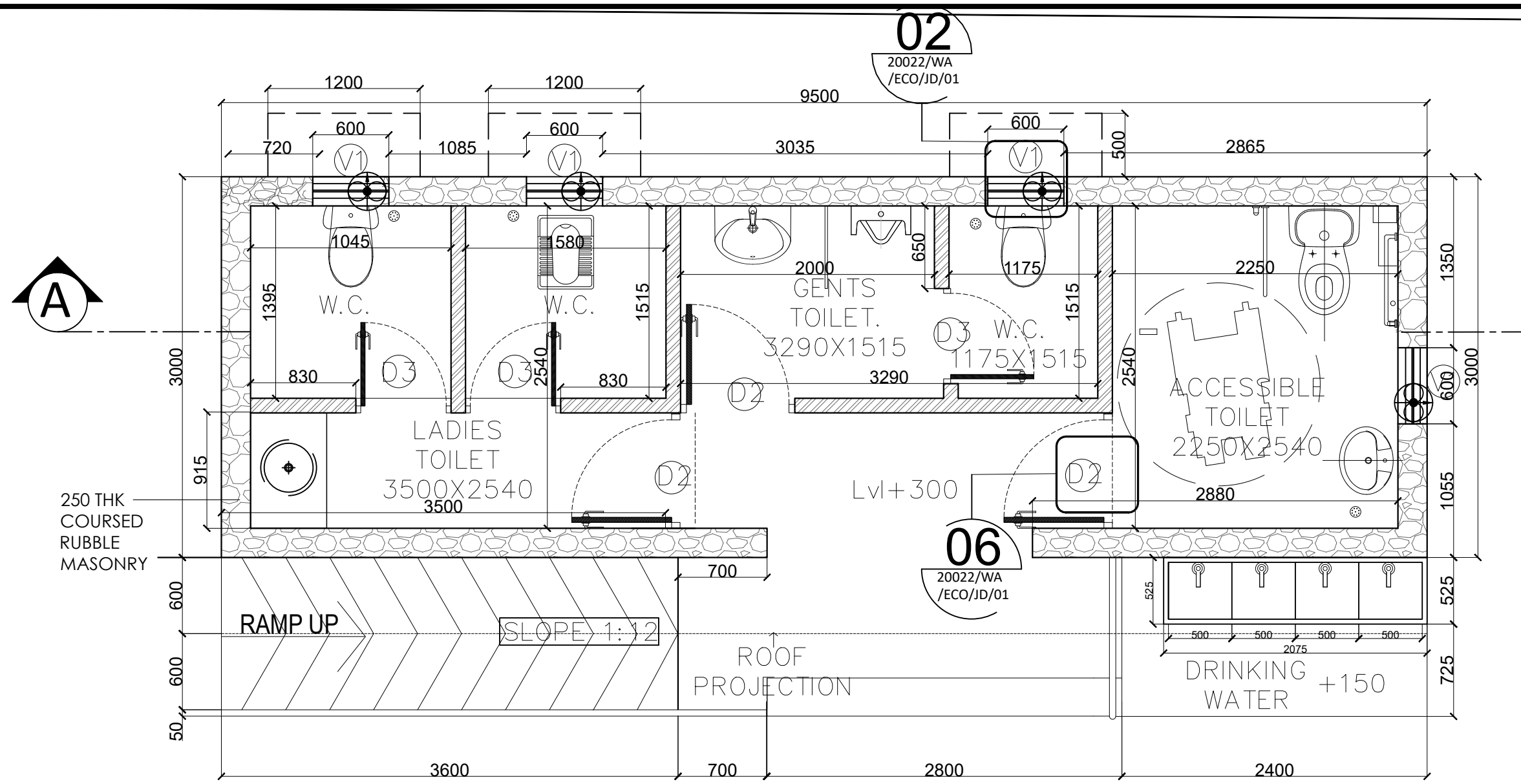


ARCHITECT :

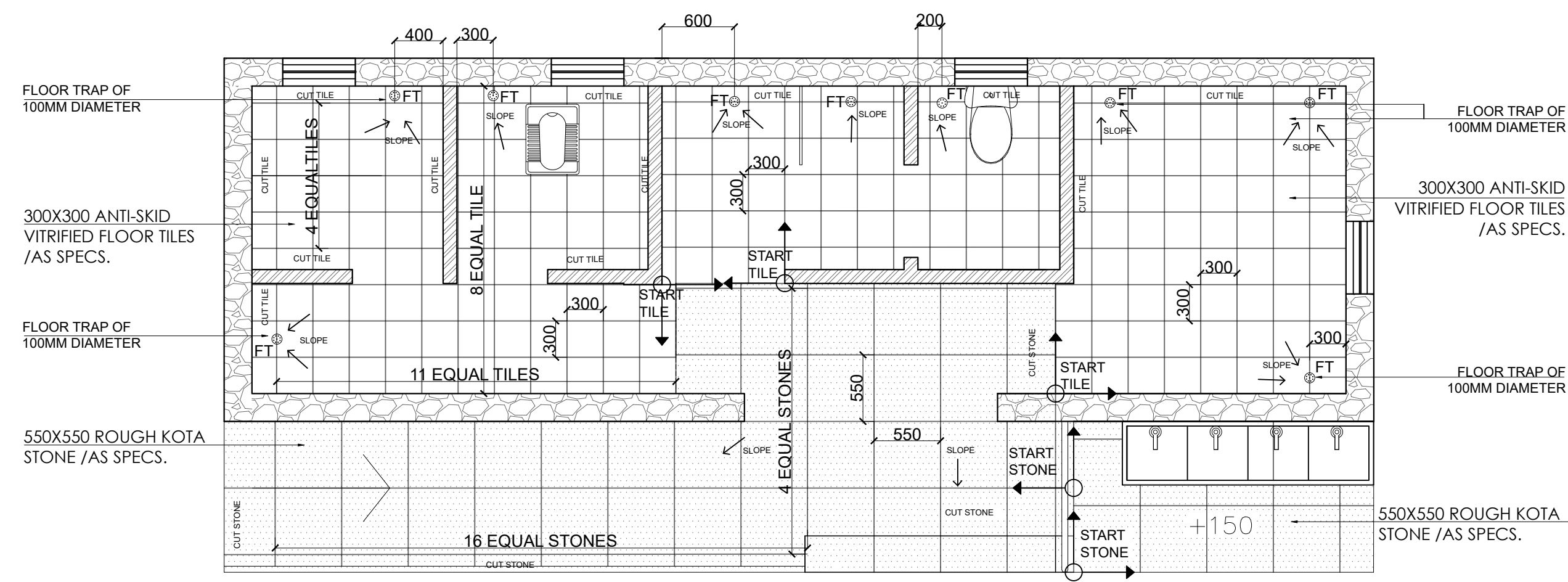
STAGE :	DRAWN BY :	CHECKED BY :	NORTH :
---------	------------	--------------	---------

TENDER			
SCALE @ A0	SCALE @ A1	DATE :	
	1:350	04.01.2024	

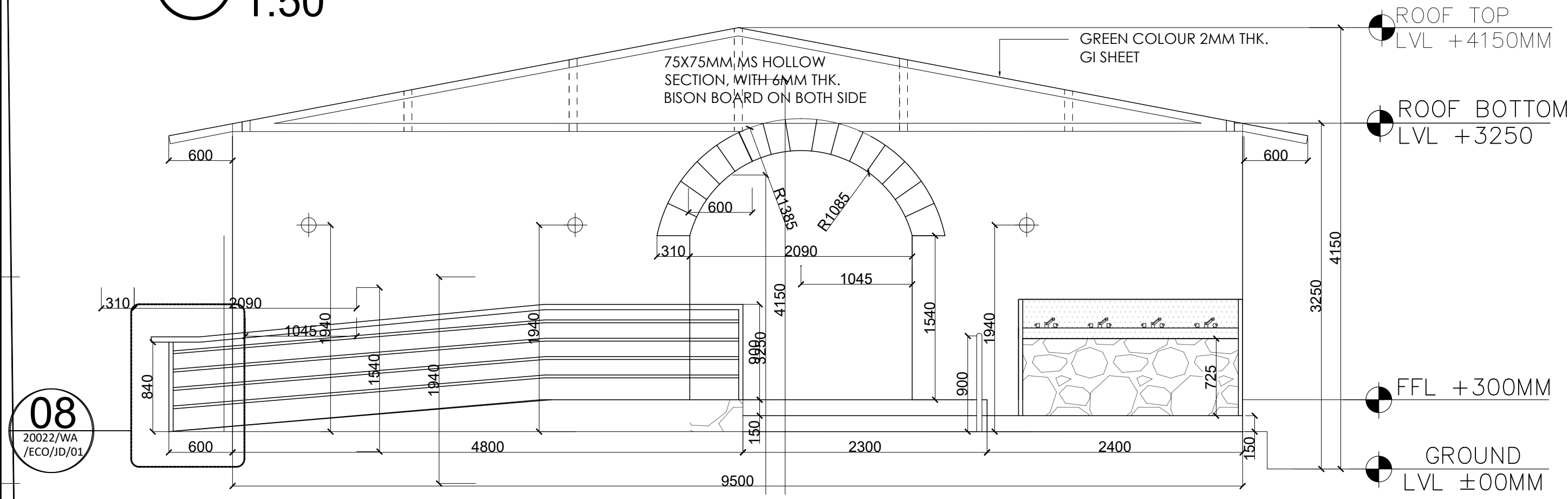
DWG NO.	DRAWING TITLE	CATEGORY :
BKEP_LD_MP_02	BARKAKANA ECO PARK MASTER PLAN	
		REV. NO :
		R1



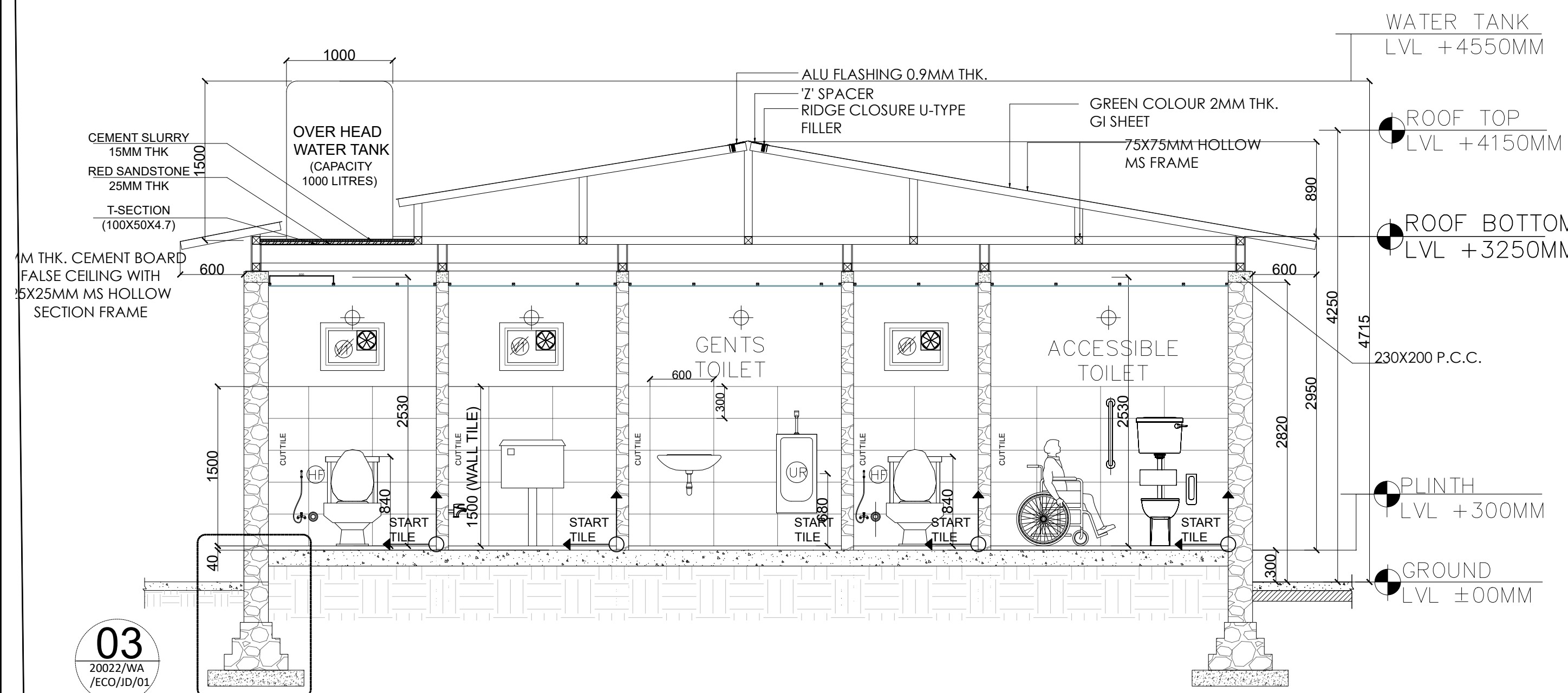
01 PLAN
1:50



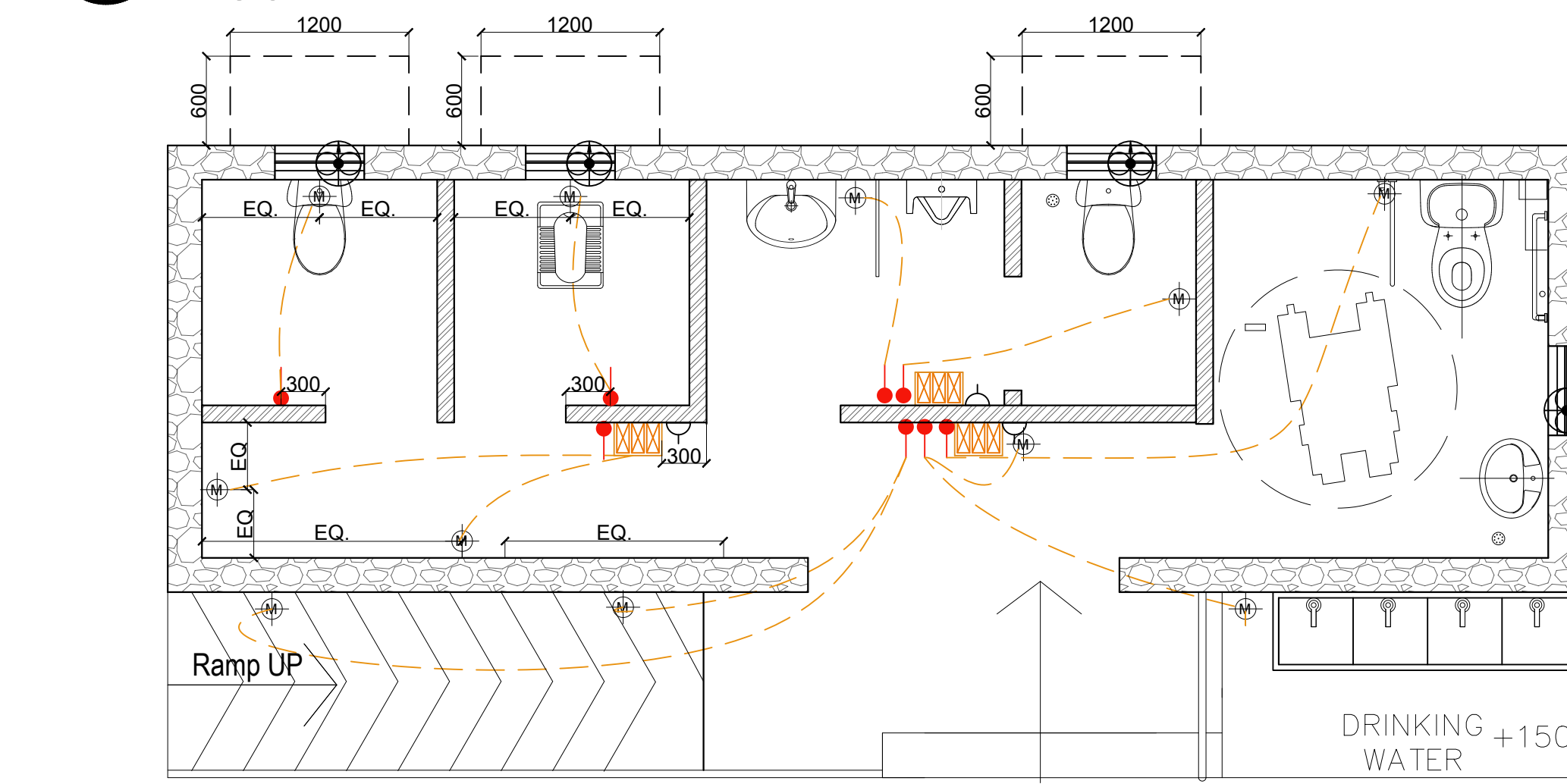
04 FLOORING PLAN
1:50



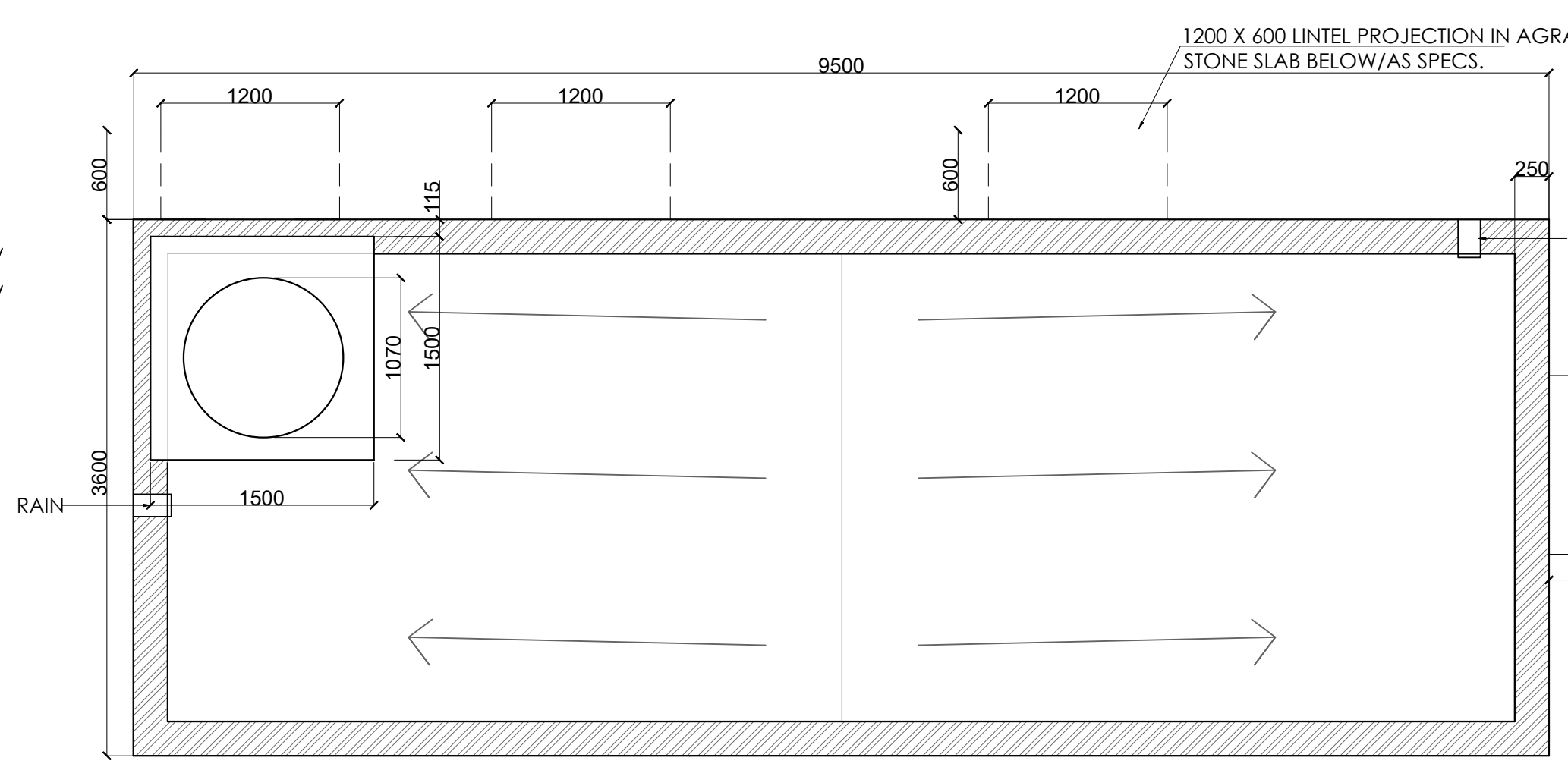
02 FRONT ELEVATION
1:50



03 SECTION AA'
1:50



05 ELECTRICAL PLAN
1:50



06 TERRACE PLAN
1:50

- GENERAL NOTES :
- THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
 - ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNER'S SPECIFICATIONS AND CONDITIONS OF CONTRACT.
 - ALL DIMENSIONS ARE IN MM.
 - ALL LEVELS ARE IN MM.
 - ALL DIMENSIONS ARE TO BE READ NOT SCALED.
 - ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00.
 - FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE, ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
 - WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

NO.	SYMBOLS	DESCRIPTION	HEIGHT
1	[Symbol]	MOISTURE RESISTANT GYPSUM BOARD	
2	[Symbol]	FLOOR TILE 600X600MM	
3	[Symbol]	WALL TILE 600X300MM	
4	[Symbol]	SWITCH BOARD	1500
5	[Symbol]	SINGLE WAY SWITCH	HEIGHT
6	[Symbol]	DOUBLE WAY SWITCH	HEIGHT
7	[Symbol]	GEYSER	HEIGHT
8	[Symbol]	10A GEYSER OUTLET	HEIGHT
9	[Symbol]	10A ONE WAY SWITCH FOR GEYSER	HEIGHT
10	[Symbol]	20 WAX WALL MOUNTED LED LIGHT	2500
11	[Symbol]	12 WAX CEILING MOUNTED LED LIGHT	HEIGHT
12	[Symbol]	EXHAUST FAN	AS REQD. AT SITE
13	[Symbol]	BRICK WORK	
14	[Symbol]	ROCKET	1000

REVISION	DATE	BY	DESCRIPTION
R1	06.03.24		ADDED DETAIL
R2	29.03.24		ADDED DETAIL
R3	13.11.24		2 SIDED SLOPPED ROOF & ADDED DETAILS

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

- FOR TENDER PURPOSE :
- NOTE:
- The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
 - All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
 - Built up area of all facilities shall be as specified in the scope of work.
 - The built up area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT :

CENTRAL COALFIELDS LIMITED (CCL)

PROJECT :

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO PARKS AT 09 DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :

WAPCOS Limited

ARCHITECT :

MASTERPLANNING | ARCHITECTURE | DESIGN

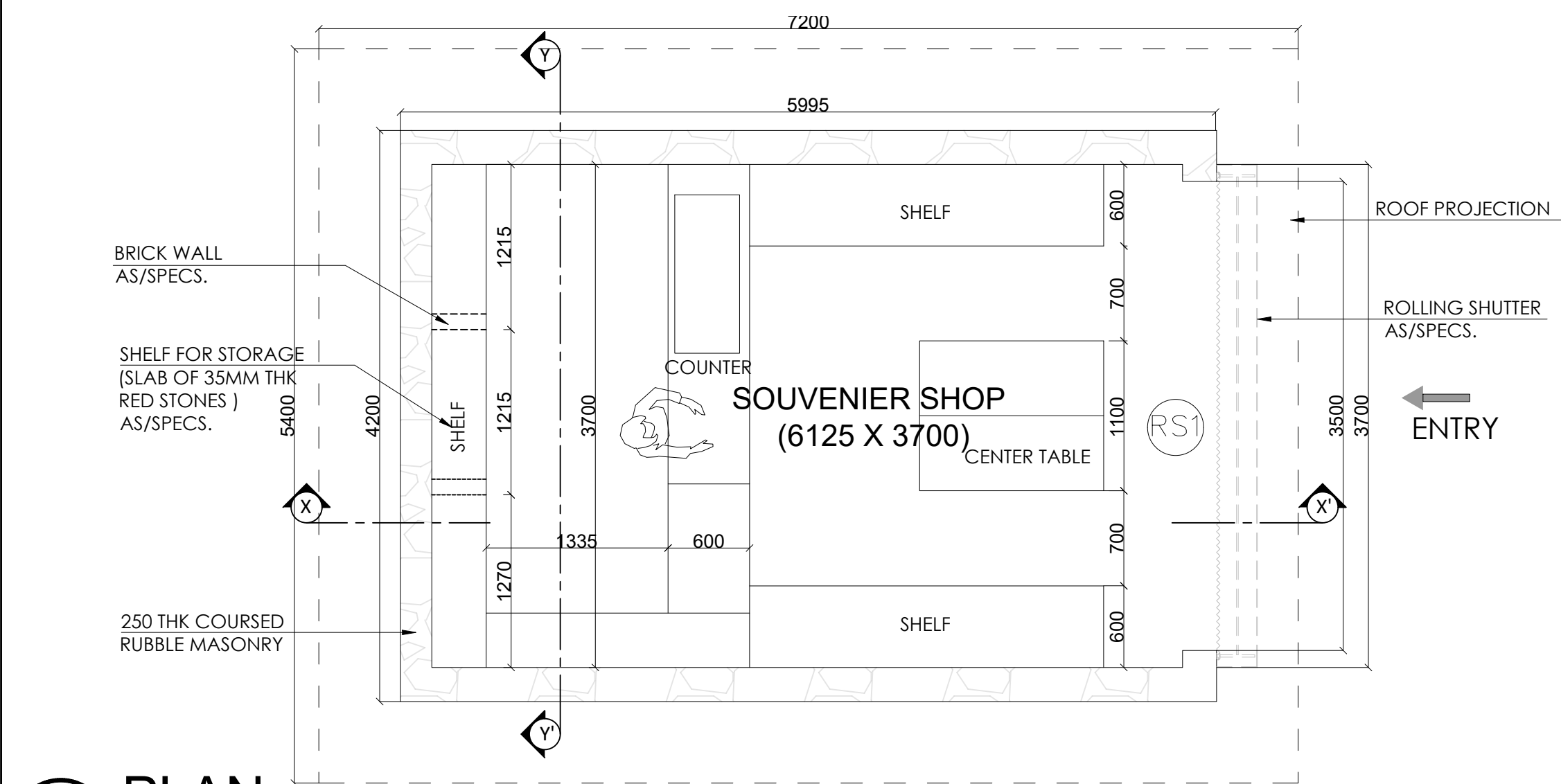
STUDIO DRA DELHI LONDON

D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120)4246175 delhi@studiodra.com

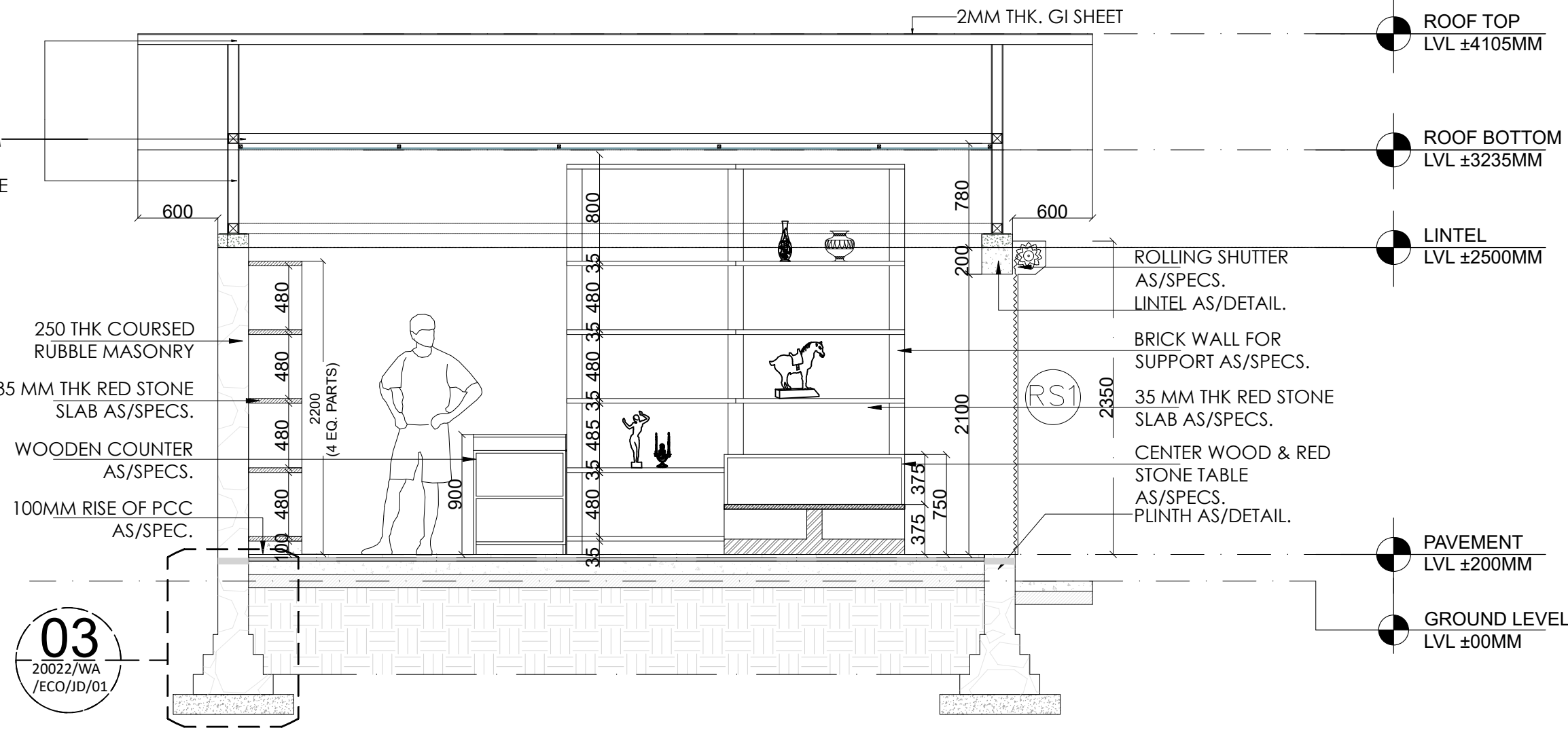
STAGE	DRAWN BY	CHECKED BY	NORTH
GFC	HS	AC	N
SCALE @ A0	SCALE @ A1	DATE:	

DWG NO.	DRAWING TITLE	CATEGORY
	TOILET BLOCK (TYPICAL)	R2

DOOR-WINDOW SCHEDULE				
TAG	SIZE (WxH)	SILL LEVEL	LINTEL LEVEL	NO.
D2	900 X 2100	00	2100	2
D3	750 X 2100	00	2100	3
V1	600 X 600	1500	2100	4



01 PLAN
1:50



02 SECTION - XX'
1:50

- GENERAL NOTES :
1. THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
 2. ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
 4. ALL DIMENSIONS ARE IN MM.
 5. ALL LEVELS ARE IN MM.
 6. ALL DIMENSIONS ARE TO BE READ NOT SCALED.
 7. ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00.
 8. FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE, ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
 9. WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

KEY PLAN

REVISION LOG

REVISION	DATE	BY	DESCRIPTION
R1	06.03.2024		DETAIL ADDED
R2	29.03.2024		CHANGE IN SLOPE AS WELL ADDITION OF EXHAUST FAN
R3	13.11.2024		2 SIDED SLOPPED ROOF & ADDED DETAILS

PRINT ISSUE LOG

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

- FOR TENDER PURPOSE :
- NOTE:
1. The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
 2. All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
 3. Built up area of all facilities shall be as specified in the scope of work.
 4. The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT :

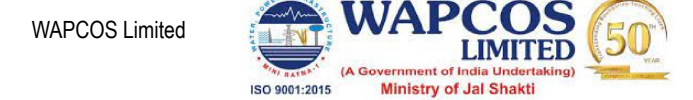
CENTRAL COALFIELDS LIMITED (CCL)



PROJECT :

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO PARKS AT 09 DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :



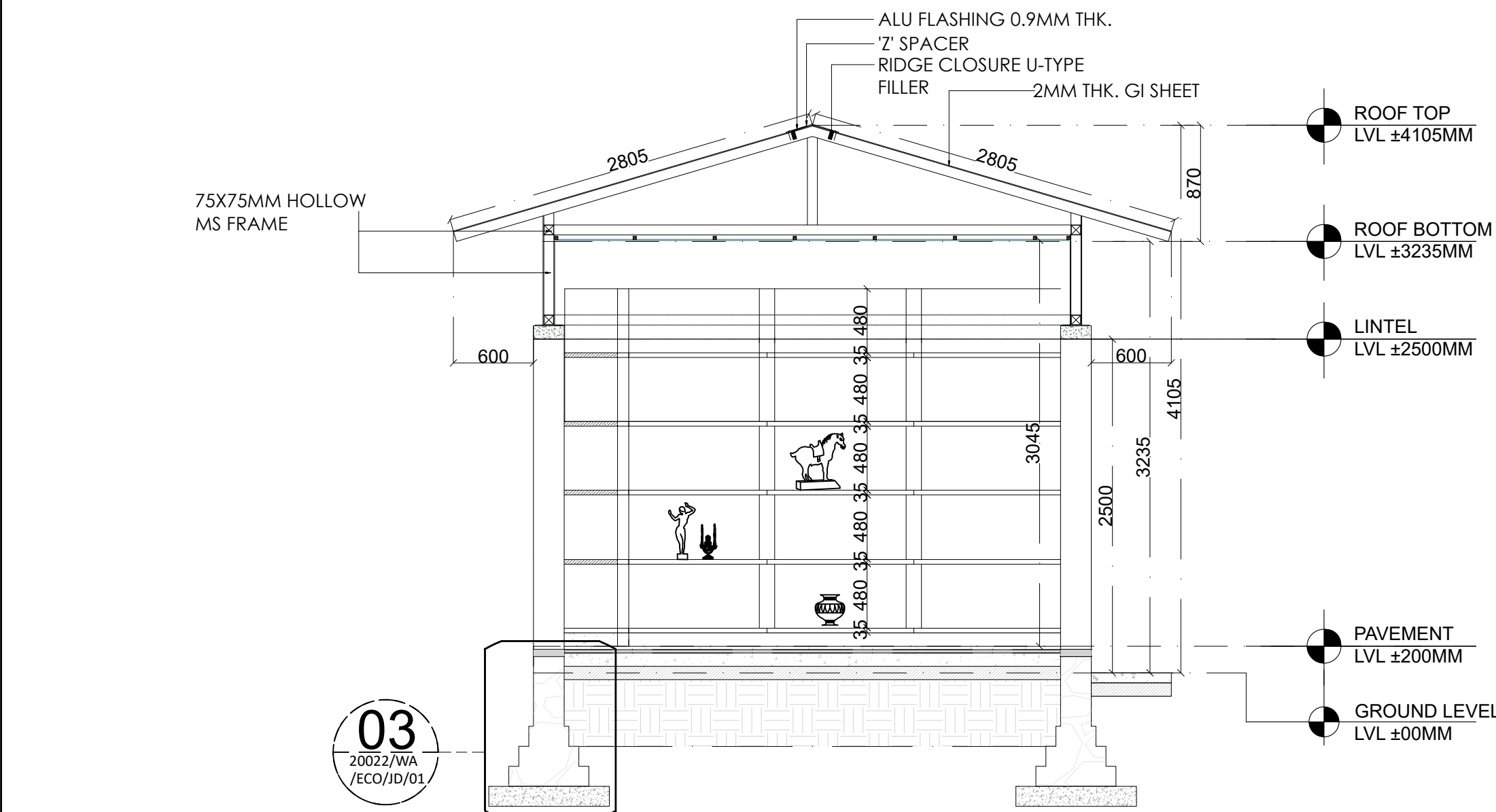
ARCHITECT :

MASTERPLANNING ARCHITECTURE DESIGN
STUDIO DRA DELHI LONDON
D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120)4246175 delhi@studiodra.com

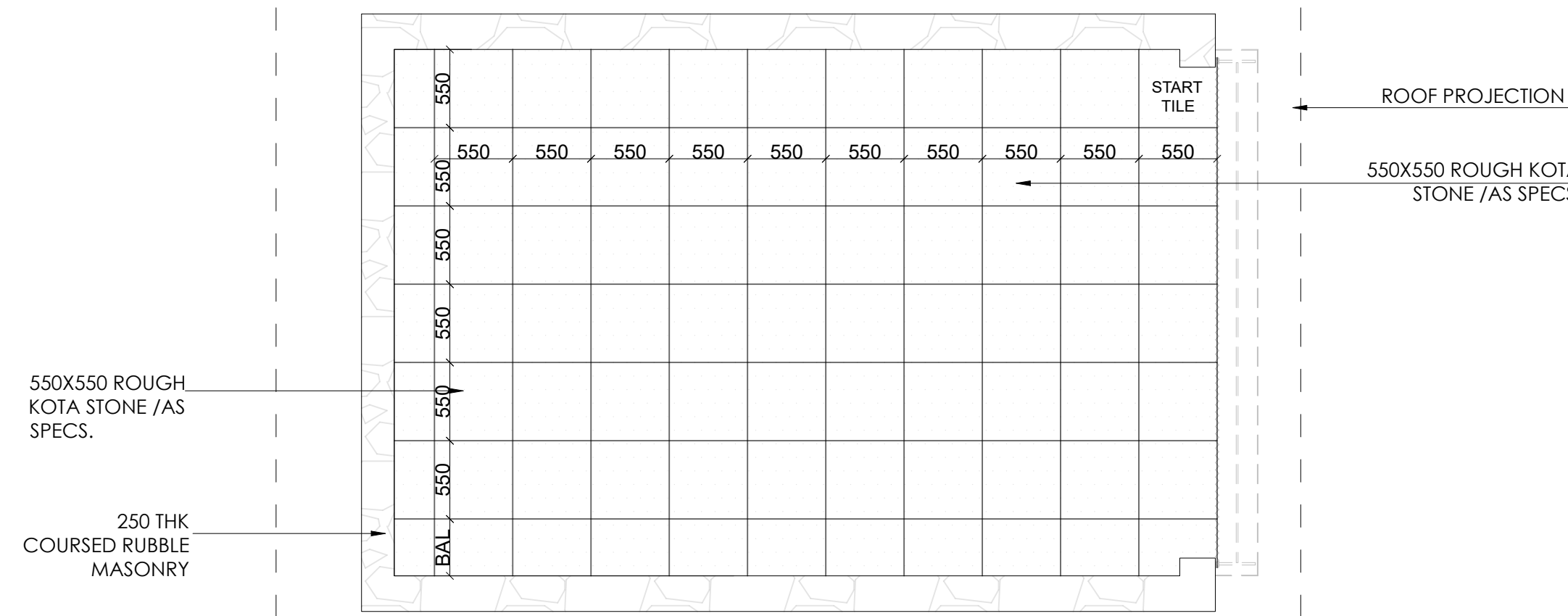
GFC

STAGE :	DRAWN BY :	CHECKED BY :	NORTH :
GFC	IM	AC	N
SCALE @ A0	SCALE @ A1	DATE :	

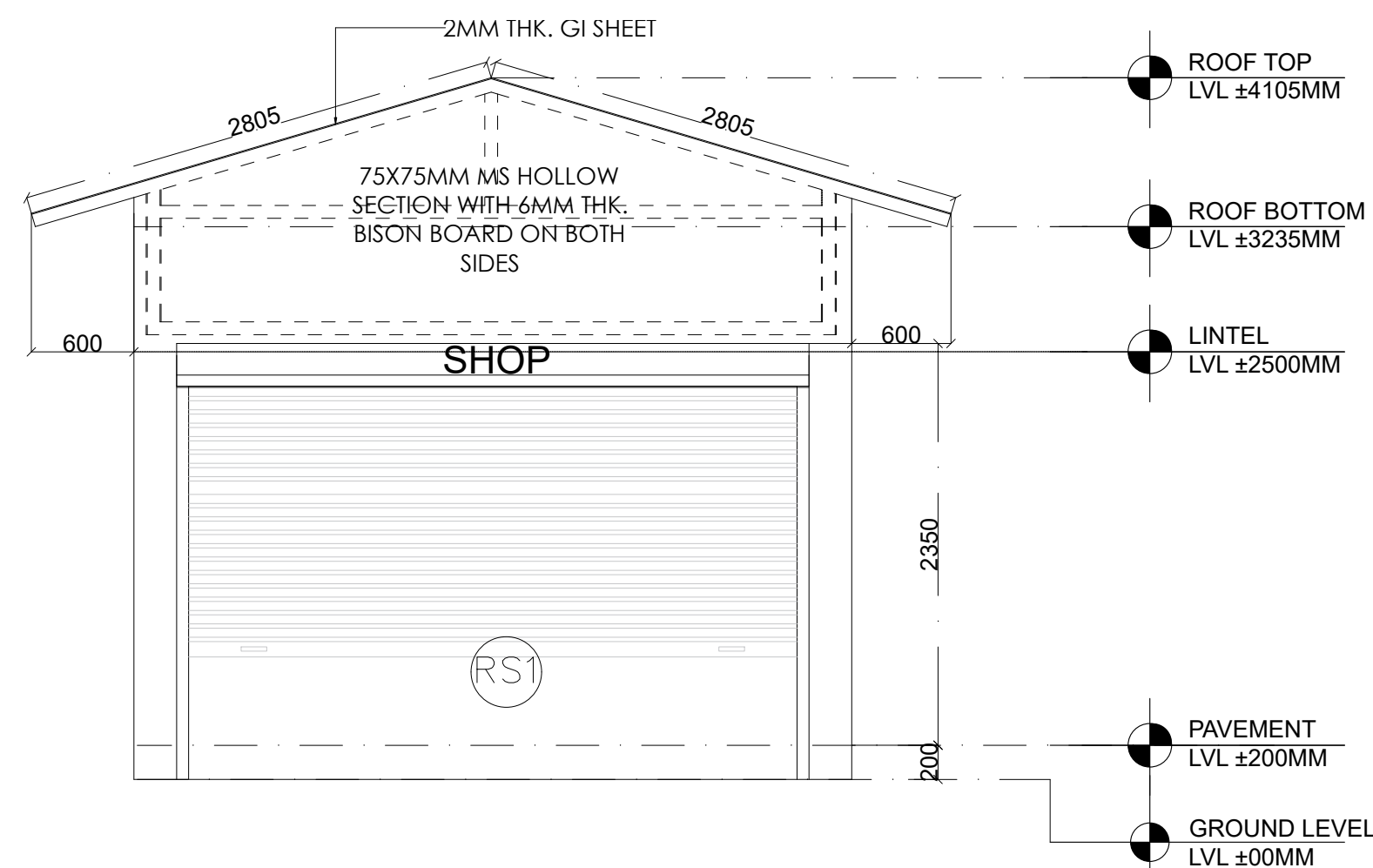
DWG NO.	DRAWING TITLE	CATEGORY :	REV. NO. :
	Souvenir Shop, Ticket Booth, Electrical Room, Souvenir Shop		



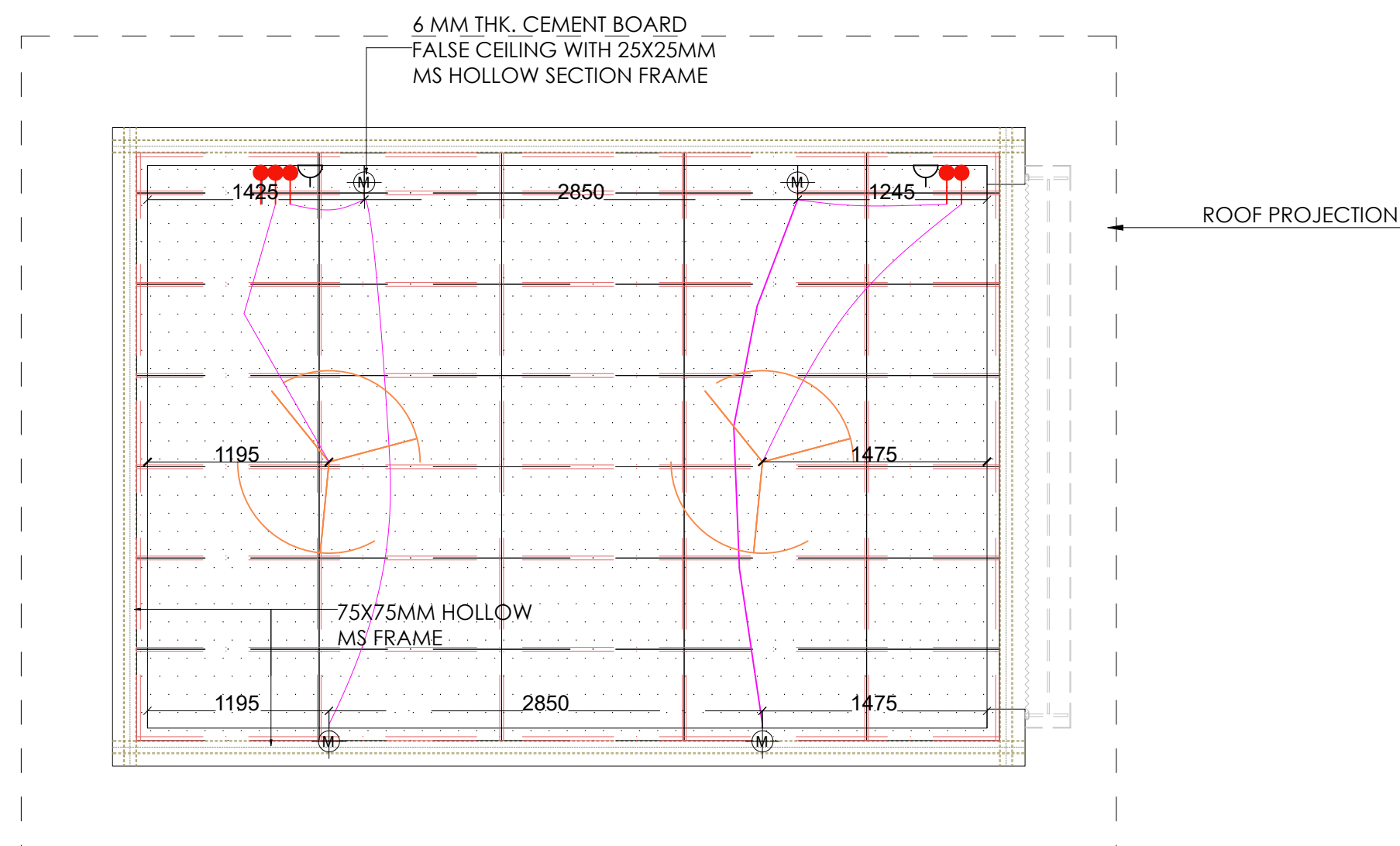
03 SECTION - YY'
1:50



05 FLOORING PLAN
1:50

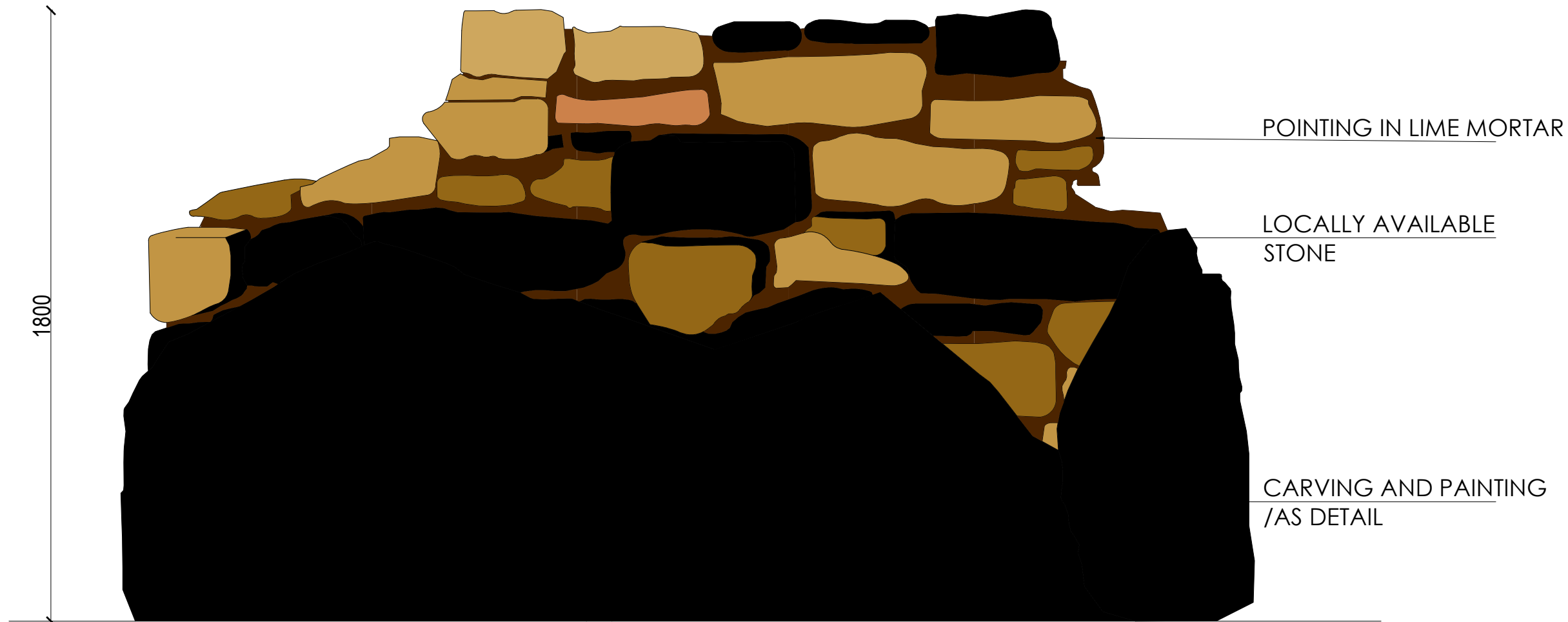


06 FRONT ELEVATION
1:50

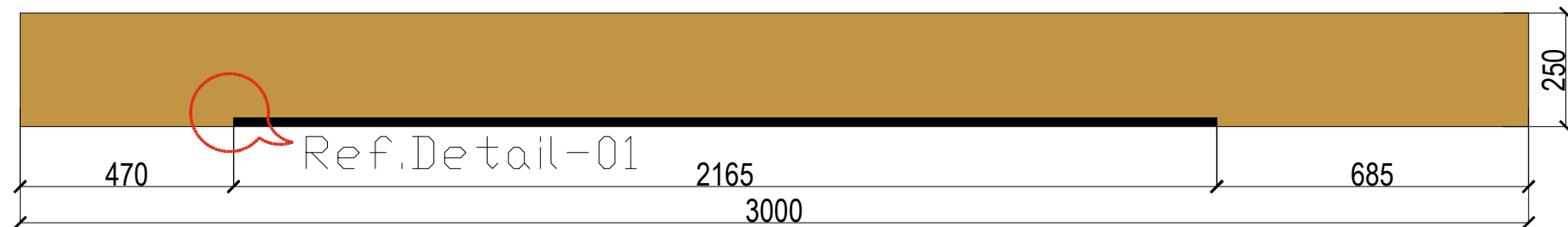


07 RCP LAYOUT
1:50

S NO.	SYMBOLS	DESCRIPTION	HEIGHT
1.		MOISTURE RESISTANT GYPSUM BOARD	
2.		FLOOR TILE 300 X 300MM	
3.		WALL TILE 600X300MM	
4.		SWITCH BOARD	1000MM
5.		6A ONE WAY SWITCH	1000MM
6.		GEYSER	
7.		16A GEYSER OUTLET	
8.		16A ONE WAY SWITCH FOR GEYSER	
9.		20 Watt. WALL MOUNTED LED LIGHT	2250MM
10.		12 Watt. CEILING MOUNTED LED LIGHT	
11.		SINGLE SOCKET	
12.		EXHAUST FAN	
13.		1200 DIA CEILING FAN	



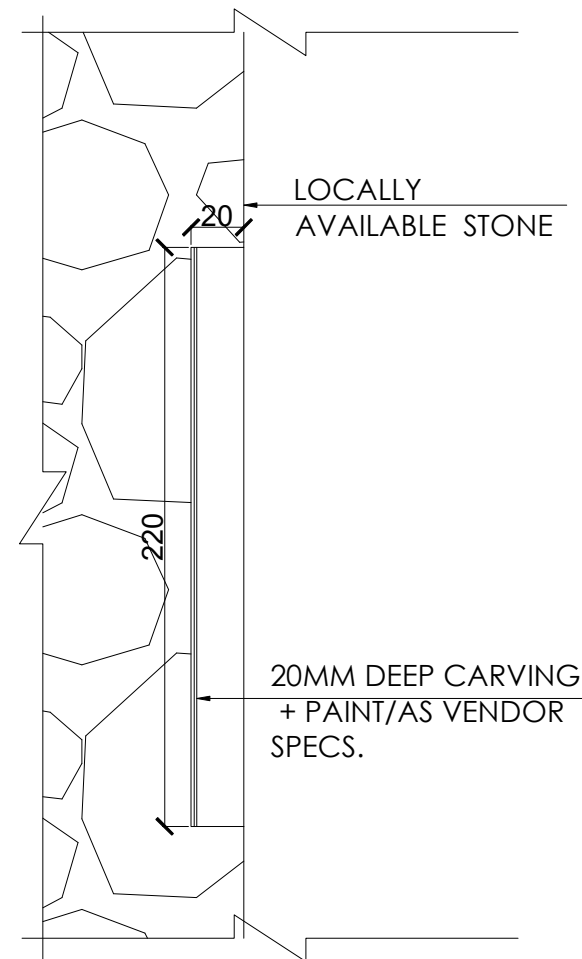
02 ELEVATION
1:15



01 PLAN
1:15



01 REF. IMAGE
N.T.S



04 DETAIL
1:2

- GENERAL NOTES :
1. THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
 2. ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
 4. ALL DIMENSIONS ARE IN MM
 5. ALL LEVELS ARE IN MM
 6. ALL DIMENSIONS ARE TO BE READ NOT SCALED.
 7. ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
 8. FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE. ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
 9. WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

KEY PLAN

REVISION LOG

REVISION	DATE	BY	DESCRIPTION
R1	06.03.24		ADDED DETAILS

PRINT ISSUE LOG

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

☐ FOR REFERENCE	☐ FOR SUPPLIERS
☐ FOR TENDER	☐ FOR APPROVAL
☐ FOR ESTIMATION	☐ FOR CONSTRUCTION

FOR TENDER PURPOSE :

NOTE:

1. The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
2. All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
3. Built up area of all facilities shall be as specified in the scope of work.
4. The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT :

CENTRAL COALFIELDS LIMITED (CCL)



PROJECT :

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO PARKS AT 09 DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :

WAPCOS Limited



ARCHITECT :

MASTERPLANNING ARCHITECTURE DESIGN

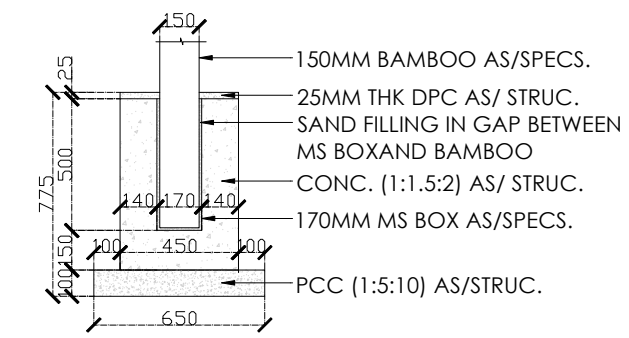
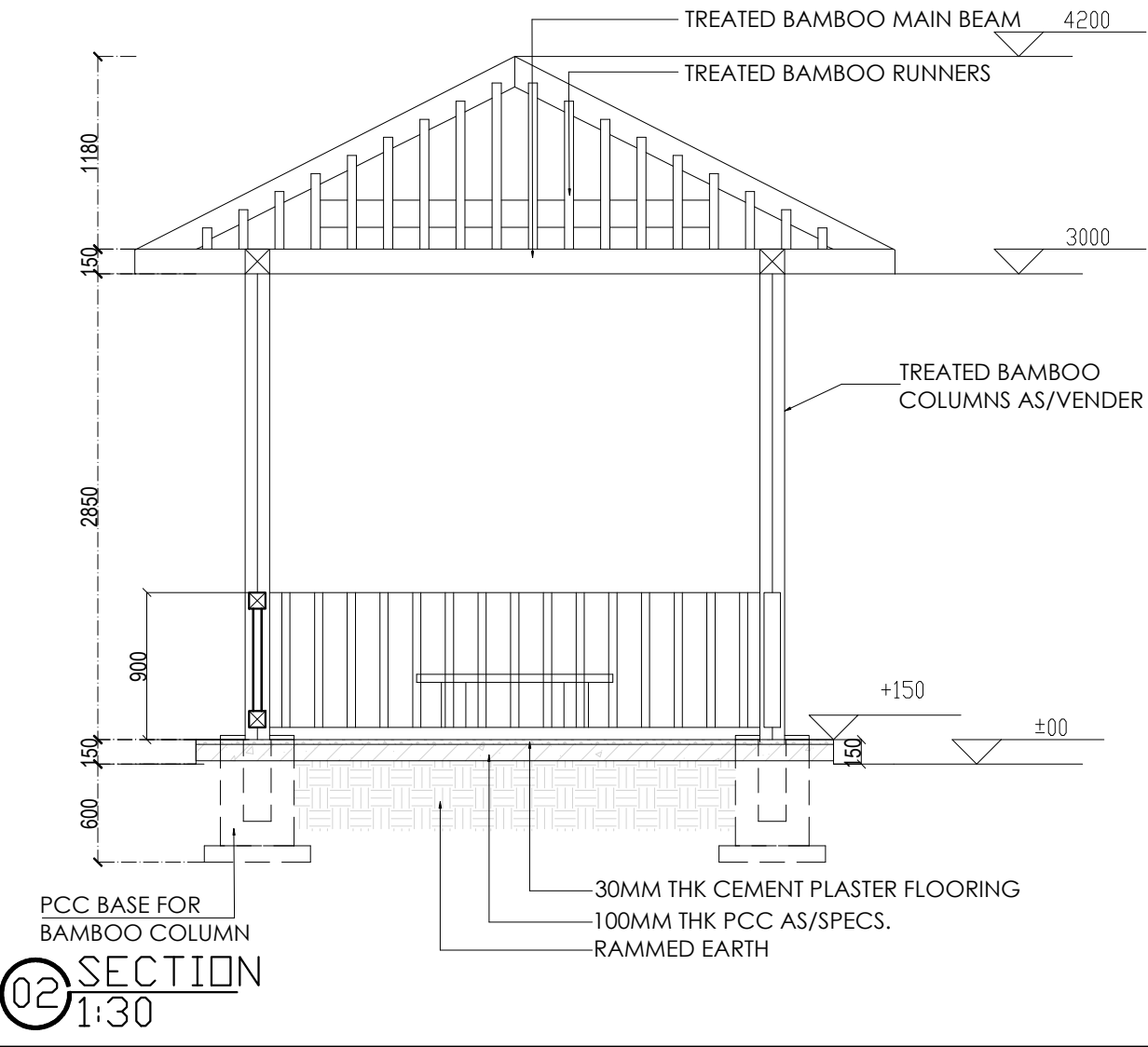
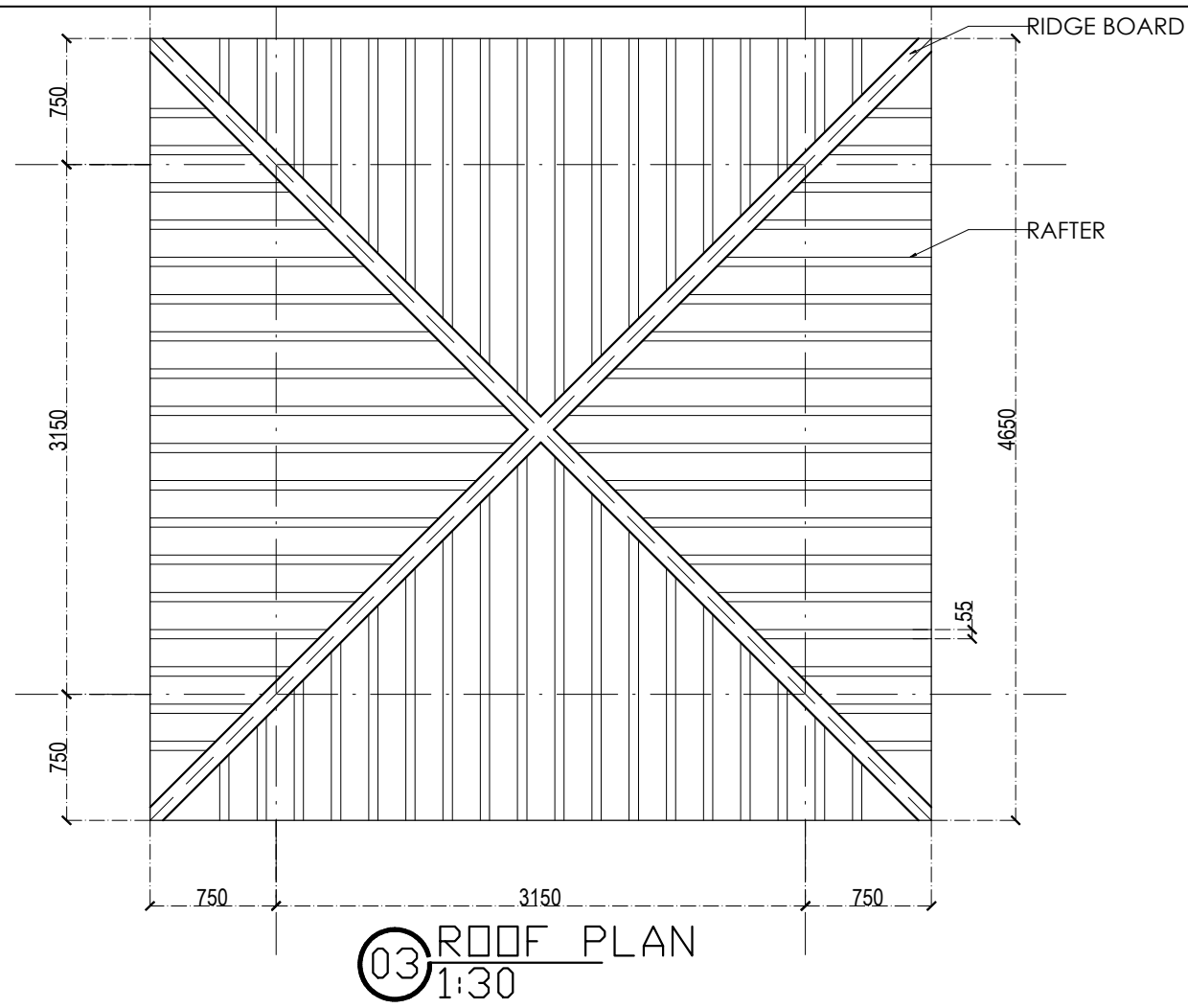
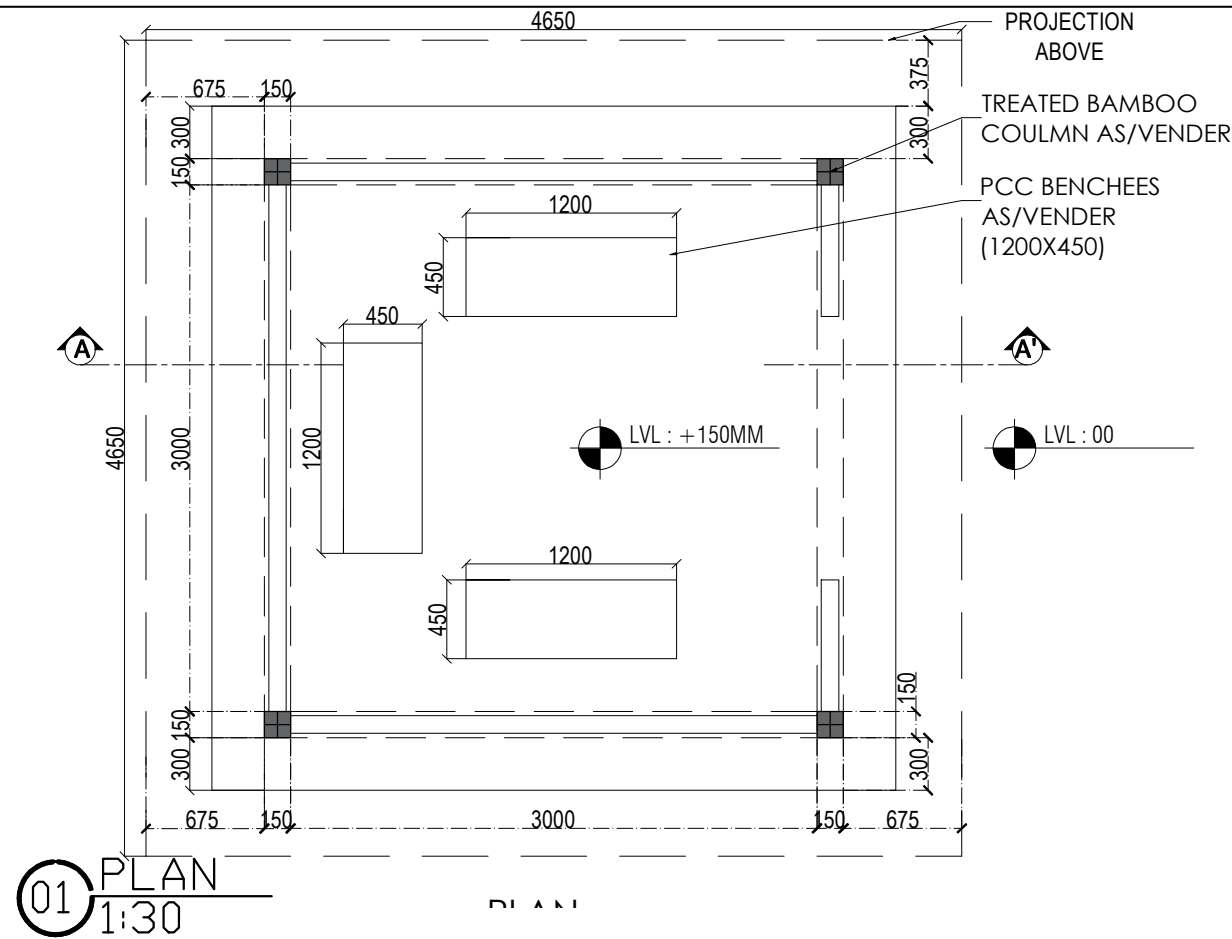
STUDIO DRA DELHI LONDON

D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120)4246175 delhi@studiodra.com



GFC			
STAGE :	DRAWN BY :	CHECKED BY :	NORTH :
GFC	SM	AC	N
SCALE @ A0	SCALE @ A1	DATE :	
	1:15	29.03.2024	

DWG NO.	ECO PARK FEATURE WALL	CATEGORY :
20022-WAP-ECO-FW-01		
REV. NO. :		
R1		



GENERAL NOTES :

- THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
- ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
- ALL DIMENSIONS ARE IN MM
- ALL LEVELS ARE IN MM
- ALL DIMENSIONS ARE TO BE READ NOT SCALED.
- ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
- FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE. ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
- WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

REVISION LOG

REVISION	DATE	BY	DESCRIPTION
R1	06.03.2024		ADDED DETAILS
R2	29.03.2024		

PRINT ISSUE LOG

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

☐ FOR REFERENCE ☐ FOR SUPPLIERS
☐ FOR TENDER ☐ FOR APPROVAL
☐ FOR ESTIMATION ☐ FOR CONSTRUCTION

FOR TENDER PURPOSE :
NOTE:

- The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
- All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
- Built up area of all facilities shall be as specified in the scope of work.
- The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendements.

CLIENT :

CENTRAL COALFIELDS LIMITED (CCL)

PROJECT :

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO PARKS AT 09 DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :

WAPCOS Limited

ARCHITECT :

MASTERPLANNING | ARCHITECTURE | DESIGN

STUDIO DRA DELHI LONDON

D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120)4246175 delhi@studiodra.com

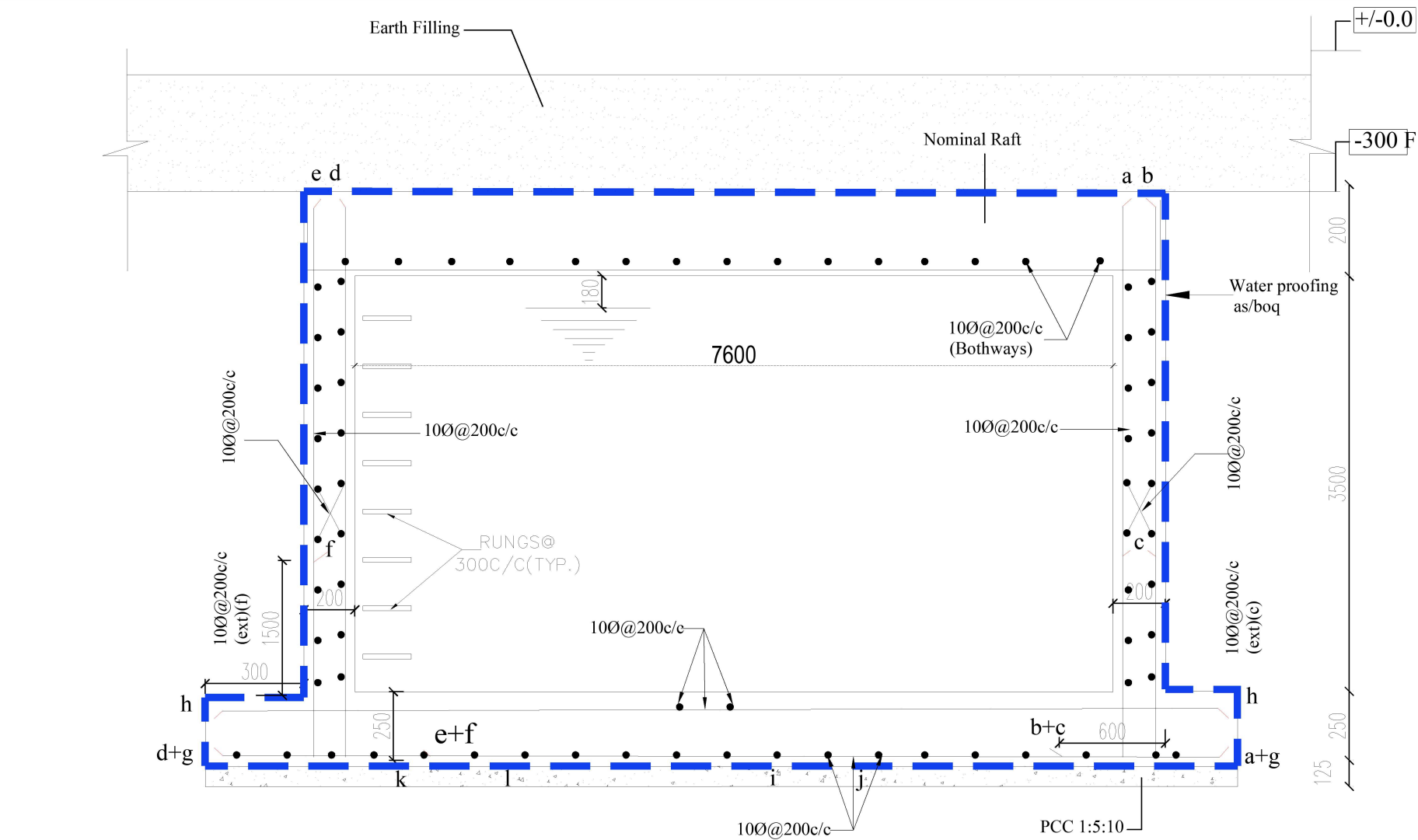
GFC

STAGE :	DRAWN BY :	CHECKED BY :	NORTH :
GFC	UPS	AC	N
SCALE @ A0	SCALE @ A1	DATE :	
	1:30, 1:20	29.03.2024	

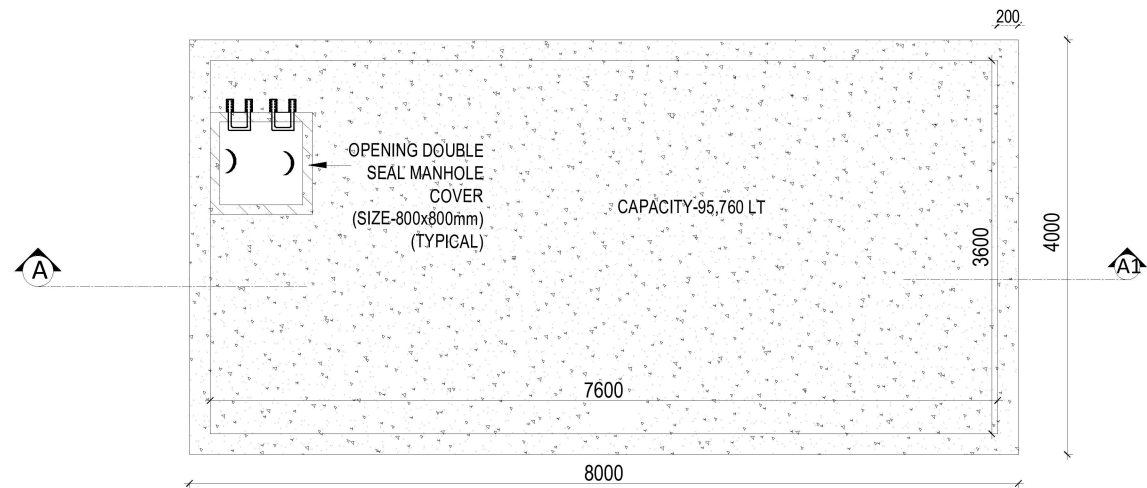
DWG NO. 20022-WAP-ECO-GB-01

GAZEBO DETAIL

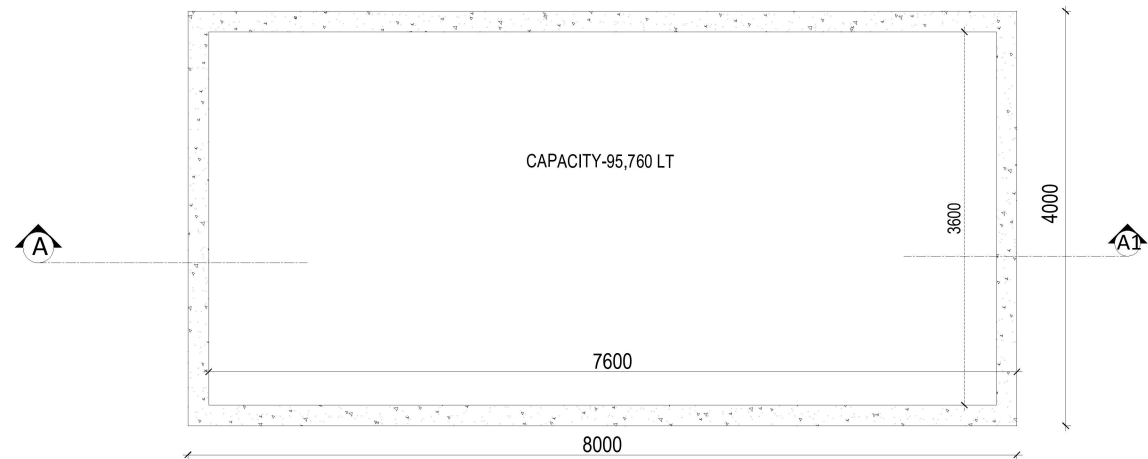
REV. NO. R2



1 SECTION-AA1
1:50



2 TOP PLAN
1:50



3 BOTTOM PLAN
1:50

Schedule of steel Reinforcement

Mark	Shape	Steel
a,b,d,e	100@200c/c	(Thro')
c,f	120@200c/c	(Ext)
g,h	100@200c/c	(Thro')
m,n	100@200c/c	(Thro')

3MM THICK WATER PROOFING MEMBRANE
AS/BOQ ITEM NO. 22.19

NOTE: NUMBER OF UGT WILL BE 2

- GENERAL NOTES :
- THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
 - ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
 - ALL DIMENSIONS ARE IN MM
 - ALL LEVELS ARE IN MM
 - ALL DIMENSIONS ARE TO BE READ NOT SCALED.
 - ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
 - FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE, ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
 - WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

KEY PLAN

REVISION LOG

REVISION	DATE	BY	DESCRIPTION
R1	29.03.2024		ADDED DETAILS

PRINT ISSUE LOG

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

☐ FOR REFERENCE	☐ FOR SUPPLIERS
☐ FOR TENDER	☐ FOR APPROVAL
☐ FOR ESTIMATION	☐ FOR CONSTRUCTION

FOR TENDER PURPOSE :

NOTE:

- The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
- All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
- Built up area of all facilities shall be as specified in the scope of work.
- The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT :

CENTRAL COALFIELDS LIMITED (CCL)



PROJECT :

ARCHITECTURAL SERVICES FOR DEVELOPMENT OF ECO PARKS AT 09 DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :



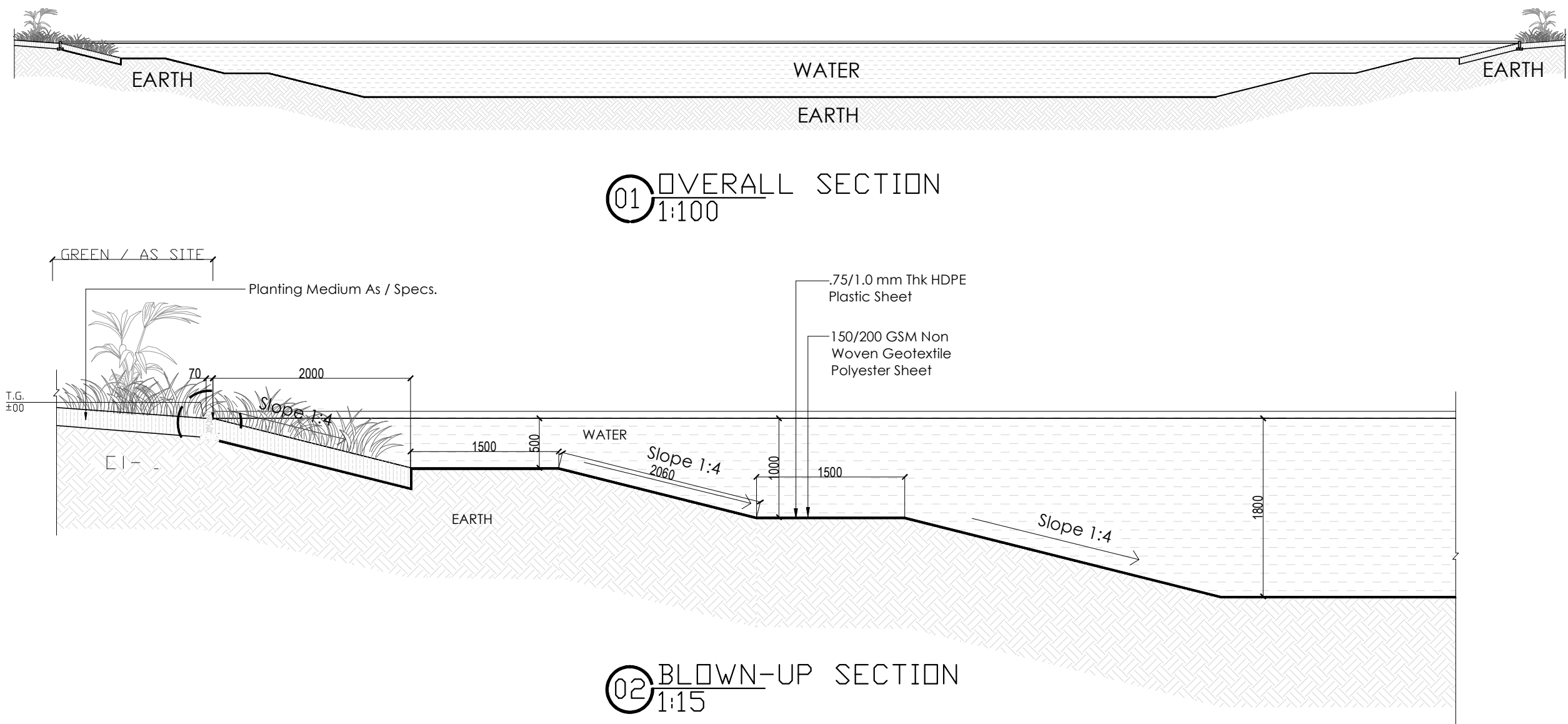
ARCHITECT :

MASTERPLANNING ARCHITECTURE DESIGN
STUDIO DRA
DELHI LONDON
D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120) 246175 delhi@studiodra.com

GFC

STAGE :	DRAWN BY :	CHECKED BY :	NORTH :
GFC	UPS	AC	N
SCALE @ A0	SCALE @ A1	DATE :	
	1:50	29.03.2024	

DWG NO.	DRAWING TITLE	REV. NO.
20022-WAP-ECO-SD-01	UGT DETAIL	R1



- GENERAL NOTES :
- THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
 - ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
 - ALL DIMENSIONS ARE IN MM
 - ALL LEVELS ARE IN MM
 - ALL DIMENSIONS ARE TO BE READ NOT SCALED.
 - ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
 - FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE. ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
 - WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

REVISION LOG			
REVISION	DATE	BY	DESCRIPTION
R1	06.03.24		DETAIL ADDED
R2	29.03.24		DETAIL ADDED

PRINT ISSUE LOG				
SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

☐ FOR REFERENCE	☐ FOR SUPPLIERS
☐ FOR TENDER	☐ FOR APPROVAL
☐ FOR ESTIMATION	☒ FOR CONSTRUCTION

- FOR TENDER PURPOSE :
- NOTE:
- The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
 - All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
 - Built up area of all facilities shall be as specified in the scope of work.
 - The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendments.

CLIENT :

CENTRAL COALFIELDS LIMITED (CCL)



PROJECT :

ARCHITECTURAL SERVICES FOR
DEVELOPMENT OF ECO PARKS AT 09
DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :

WAPCOS Limited



ARCHITECT :

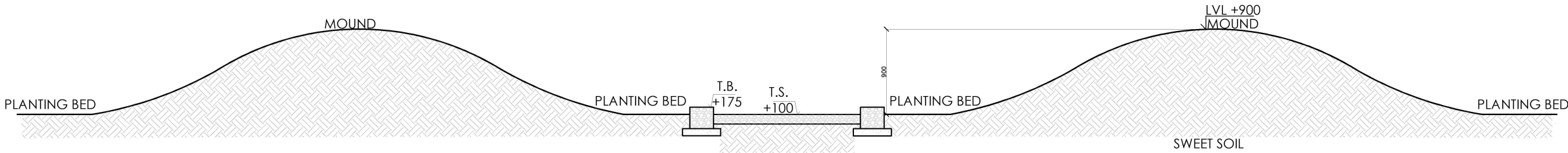
MASTERPLANNING ARCHITECTURE DESIGN

STUDIO DRA DELHI LONDON

D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120)4246175 delhi@studiodra.com



GFC			
STAGE :	DRAWN BY :	CHECKED BY :	
GFC	SS	AC	
SCALE @ A0	SCALE @ A3	DATE :	
	1:50, 1:15 1:2	29.03.2024	
DWG NO.	WATER BODY (TYPICAL SECTION)		CATEGORY :
	20022-WAP-ECO-GT-10		REV. NO. : R2



01 TYPICAL SECTION THRU MOUND AREA
1:35

GENERAL NOTES :

1. THIS DRAWING AND DESIGN IS CREATED BY THE STUDIO DRA. NO PORTION MAY BE USED OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.
2. ARCHITECT MUST BE INFORMED OF ANY ADDITIONAL INFORMATION REQUIRED OR IN CASE OF ANY DISCREPANCY BEFORE COMMENCEMENT OF WORK ON SITE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DESIGNERS SPECIFICATIONS AND CONDITIONS OF CONTRACT.
4. ALL DIMENSIONS ARE IN MM
5. ALL LEVELS ARE IN MM
6. ALL DIMENSIONS ARE TO BE READ NOT SCALED.
7. ALL THE CEILING LEVEL CONSIDERED FROM FFL AS 00
8. FIGURED DIMENSIONS ONLY ARE TO BE USED. ALL DIMENSIONS TO BE CHECKED ON SITE, ANY DIFFERENCES BETWEEN DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATION OR BILLS OF QUANTITIES TO BE REPORTED TO STUDIO DRA.
9. WALL THICKNESS CONSIDERED 250MM / 150MM AAC BLOCKS UNLESS SPECIFIED.

KEY PLAN

REVISION LOG

REVISION	DATE	BY	DESCRIPTION
R1	29.03.2024		ADDED DETAILS

PRINT ISSUE LOG

SR. NO.	PRINT ISSUE LOG	FOR	DATE	NO.

☐ FOR REFERENCE	☐ FOR SUPPLIERS
☐ FOR TENDER	☐ FOR APPROVAL
☐ FOR ESTIMATION	☒ FOR CONSTRUCTION

FOR TENDER PURPOSE :

NOTE:

1. The contractor has to construct all Ph-1 infrastructure and make necessary space provisions & flexibility for construction of Ph-2 activities.
2. All tender drawings are based on approved concept design & further detailing shall be taken up by EPC contractor.
3. Built up area of all facilities shall be as specified in the scope of work.
4. The builtup area shall be calculated based upon PAR 2021 guidelines or its latest amendements.

CLIENT :

CENTRAL COALFIELDS LIMITED
(CCL)



PROJECT :

ECO PARK
ARCHITECTURAL SERVICES FOR
DEVELOPMENT OF ECO PARKS AT 09
DIFFERENT AREAS IN JHARKHAND

EXECUTING AGENCY :

WAPCOS
Limited



**WAPCOS
LIMITED**
ISO 9001:2015
(A Government of India Undertaking)
Ministry of Jal Shakti



ARCHITECT :

MASTERPLANNING | ARCHITECTURE | DESIGN
STUDIO DRA
DELHI LONDON
D-149, SECTOR 10, NOIDA, U.P - 201301 INDIA
TEL +91 (120) 4246175 delhi@studiodra.com



GFC

STAGE :	DRAWN BY :	CHECKED BY :	
GFC	UPS	AC	
SCALE @ A0	SCALE @ A1	DATE :	
	1:35, 1:10	29.03.2024	
DRAWING TITLE	GREEN MOUND (TYPICAL SECTION)		CATEGORY :
DWG NO.	20022-WAP-ECO-GT-11		REV. NO. :
			R1

BIO COMPOST SPECIFICATION

BIO COMPOST

Bio Composting is the aerobic bio- degradation of organic materials under controlled conditions, resulting in a rich humus-like material. Or a mixture of organic matter, as from leaves and manure, that has decayed or has been digested by organisms, used to improve soil structure and provide nutrient.

The composting process can be divided into two main periods:

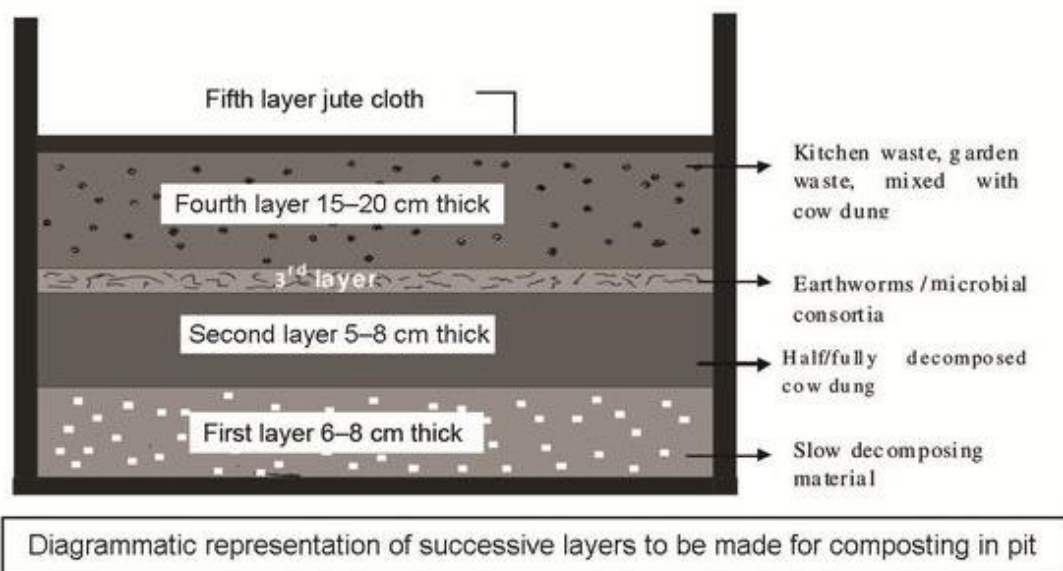
- (1) Active composting
- (2) Curing.

Active composting is the period of vigorous microbial activity during which readily degradable material is decomposed as well as some of the more decay resistant material, such as cellulose. Curing follows active composting and is characterized by a lower level of microbial activity and the further decomposition of the products of the active composting stage.

Size of pit – 10ft X 6ft x 2.5ft

PROCEDURE

1. Manure prepared from farm waste material, vegetable waste, animal refuse, sewage waste, domestic waste, straw etc. on decomposition in pits.
2. It takes 3-6 months to prepare.
3. Organic remains decomposed by microbes naturally.



SIGNAGE'S

An information board with information about the facility is to be provided for visitors including. The board is designed to be easily legible by using sufficiently large text size, distinct contrast, and illumination. The information will also be in Braille.

Signages will be highlighted with Spotlight that do not cast wide beams of light elsewhere.

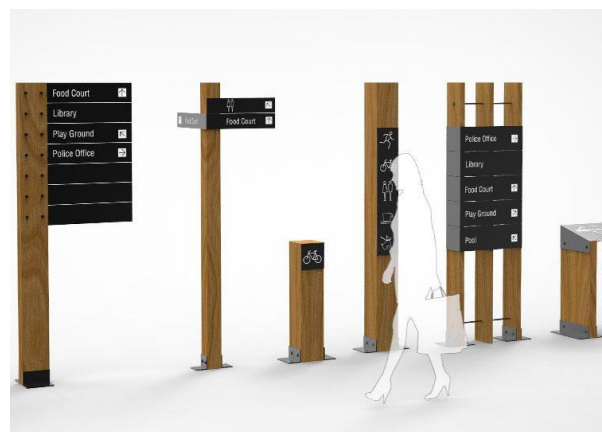
The types of Signages with information boards are proposed at various locations. As choosing Environmentally Friendly signage like:

Material:

- Wood & Bamboo
- Mild Steel (Powder Coated)
- Stone

Numbers: 25 Nos.

Dimensions: The diameter of a mandatory sign disc must be 60 cm and height from ground level should be 1500 to 2800 mm.



FRP DUSTBIN

Fiber Reinforced Plastic Dustbin

Material:

- Fiber Reinforced Plastic

Numbers: 25 Nos.

Dimensions: 350 dia, 750 height



FURNITURE

Amenities Building Furniture

Material:

- Bamboo
- Local Stone and Mild Steel

Numbers:

- Furniture -
- Chairs/ Bench



Maze Garden



Topiary Garden



Flower Garden



Edible Garden



Picnic Lawn



Senior Citizen/Yoga Garden



Central Coalfields Limited



सी.सी.एल
भारत सरकार का उपक्रम
एक मिनीरल कंपनी

TENDER DOCUMENT



“DEVELOPMENT OF ECOPARK AT BARKAKANA, DISTT. RAMGARH, JHARKHAND (Call 3)”

VOLUME-II: FINANCIAL BID



Chief Scientist-II
Ropeways Division
WAPCOS LTD

2nd Floor, Plot No.- 62, Institutional Area Sector – 18,
Gurugram-122015, Haryana

Volume-II

Section-IX

FINANCIAL BID

VOLUME - II: FINANCIAL BID**Contents**

VOLUME - I: TECHNICAL BID	3
NOTICE INVITING TENDER (NIT)	6
SECTION - I: INSTRUCTIONS TO BIDDER.....	10
SECTION - II: MANDATORY DOCUMENTS.....	18
SECTION - III: GENERAL CONDITIONS OF CONTRACT	25
SECTION - IV: SPECIAL CONDITIONS OF CONTRACT	92
SECTION - V: ANNEXURES	115
ANNEXURE – I: FORM OF PERFORMANCE GUARANTEE/ ADDITIONAL PERFORMANCE GUARANTEE	116
ANNEXURE – II: FORM OF ADVANCE PAYMENT GUARANTEE	118
ANNEXURE – III: FORMAT FOR INDENTURE FOR SECURED ADVANCES.....	121
ANNEXURE – IV: FORMAT FOR SEEKING EXTENSION OF TIME	124
ANNEXURE – V: FORMAT FOR GUARANTEE BONDS / AFFIDAVIT FOR WORK	125
ANNEXURE – VI: FORMAT FOR GUARANTEE BONDS FOR WATER PROOFING	126
ANNEXURE – VII: FORMAT FOR GUARANTEE BONDS FOR ANTI-TERMITE TREATMENT.....	127
ANNEXURE – VIII: SAFETY CODES	128
ANNEXURE – IX: MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY CONTRACTORS	133
ANNEXURE - X: CONTRACTOR'S LABOUR REGULATIONS	139
BANK GUARANTEE FORMAT FOR EMD	145
SECTION – VI: FORMS	147
LETTER OF TRANSMITTAL	148
FORM-A: FINANCIAL INFORMATION	149
FORM- B: STRUCTURE & ORGANISATION	150
FORM-C: FORMAT FOR NO-CONVICTION CERTIFICATE	151
FORM-D: FORMAT FOR UNDERSTANDING THE PROJECT SITE.....	152
FORM-E: FORMAT FOR NO DEVIATION CERTIFICATE	153
FORM-F: FORMAT FOR INTEGRITY PACT	154
ENCLOSURE-I: INTEGRITY AGREEMENT	155
FORM-G: FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES, DISQUALIFICATION	160
FORM-H: FORMAT FOR SOLVENCY CERTIFICATE	161
FORM – I: DETAILS OF SIMILAR WORKS EXECUTED DURING LAST 07 YEARS MEETING THE MINIMUM ELIGIBILITY CRITERIA	162
FORM – J: FORMAT FOR JOINT VENTURE AGREEMENT – NOT APPLICABLE.....	1
FORM K: NON-BLACKLISTING/DEBARMENT UNDERTAKING	6

SECTION – VII: SCOPE OF WORK..... 8

SECTION– VIII: TENDER DRAWINGS OF THE PROJECT..... 55

VOLUME - II: FINANCIAL BID..... 3

LETTER OF TRANSMITTAL FOR FINANCIAL BID 5

TOTAL COST OF WORKS 6

PAYMENT SCHEDULE..... 7

LETTER OF TRANSMITTAL FOR FINANCIAL BID
(On Original Letter Head of Bidder)

Dated:

To,
 Chief Scientist-II
 Ropeways Division
 WAPCOS Limited, Gurugram

Sub: Financial Bid for the work ----- (Name of Work /Project)

Dear Sir,

With reference to your NIT document dated, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Bid for the aforesaid Project. The Bid is unconditional and unqualified.

1. I / We acknowledge that the WAPCOS will be relying on the information provided in the BID and the documents accompanying the BID for selection of the Contractor for the aforesaid Project, and we certify that all information provided in the Bid are true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the BID are true copies of their respective originals.
2. The BID Price has been quoted by me / us after taking into consideration all the terms and conditions stated in the NIT, draft Agreement, our own estimates of costs and after a careful assessment of the site and all own the conditions that may affect the project cost and implementation of the project.
3. I/ We acknowledge the right of the Authority to reject our BID without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
4. In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into a Agreement in accordance with the draft that has been provided to me/us prior to the BID Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.
5. I / We shall keep this offer valid as period specified in the NIT.
6. I / We hereby submit our FINANCIAL BID and offer Price excluding GST as filled in excel format in Summary Sheet for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement.

Yours faithfully,

Date:

(Signature, name and designation
 of the Authorized signatory)

Place:

Name and seal of Bidder

TOTAL COST OF WORKS

Description	Total Amount (Excluding GST) (Rs.)
DEVELOPMENT OF ECOPARK AT BARKAKANA, DISTT. RAMGARH, JHARKHAND (Call 3)	DONOT FILL COST HERE
Total amount in words: DONOT FILL COST HERE AS IT IS TECHNICAL PROPOSAL FILE	

Note:-

- **This financial proposal of tender is attached in Microsoft Excel format. Bidder shall fill the offer only in soft excel format. The bidder will upload same filled soft Microsoft Excel file during uploading of financial bid on online Portal.**
- **The Bidder shall quote its offer up to zero decimal only in bill of quantity of tender.**
- The bidder shall quote keeping in view all associated costs with the project including any out of pocket / mobilization expenses/ Custom duty (if any), Buildings and other construction workers welfare cess, TDS, Royalty, Quality Control Charges, Labor Insurance and all taxes (except GST) if any applicable as per Govt. terms, shall be paid by the Contractor. The Goods and Services Tax (GST) shall be paid extra over quoted cost.
- It is mandatory to bidders to deposit GST within time limit framed by Govt. of India, if applicable. The Goods and Services Tax (GST), shall be reimbursed to the Agency only after uploading of bills by Contractor on GST Portal "to avail Input benefit of GST"
- The company shall be performing all its duties of deduction TDS and other deduction on payment made to the contractor as per applicable legislation in force on the date of submission of bid or to be newly / amended introduced during the execution of the Contract.

PAYMENT SCHEDULE

The running payment will be released on the basis of the following

Note

- 1) If the cost of the accepted contract (excluding GST) is 'N', then
- 2) First Running Account Bill will only be accepted after the completion of Layout/Demarcation of all components of the Eco-Park.
- 3) For the purpose of releasing the running payments they are further sub divided as follows

S.N o.	Amenity Blocks	% of Payment	Payment Disbursement Schedule
1	Site Cleaning	1.8%	100% After Completion
2	Entry /Exit Gate	0.9%	100% After Completion
3	Guard Room/Ticketing Booth/Office	3.5%	40% on Structure Completion upto Roof level, 40% on Roofing & Flooring Completion, 20% on lighting, Fixtures & Finishing Works
4	Cafeteria	6.0%	40% on Structure Completion upto Roof level, 40% on Roofing & Flooring Completion, 20% on lighting, Fixtures & Finishing Works
5	Souvenir Shop	3.5%	40% on Structure Completion upto Roof level, 40% on Roofing & Flooring Completion, 20% on lighting, Fixtures & Finishing Works
6	Rest Room	8.0%	40% on Structure Completion upto Roof level, 40% on Roofing & Flooring Completion, 20% on lighting, Plumbing, Fixtures & Finishing Works
7	Parking	5.5%	50% on Procurement of Material,

S.N o.	Amenity Blocks	% of Payment	Payment Disbursement Schedule
			50% on completion of Work
8	Gazebo	3.5%	50% on Procurement of Material, 50% on completion of Work
9	Resting Point with Benches		
a	Amenities Building Furniture's	1.2%	100% After Completion
b	Bamboo Chairs	0.0%	100% After Completion
10	Visual green/ Mound	0.7%	100% After Completion
11	Green House	2.3%	50% on Procurement of Material, 50% on completion of Work
12	Nursery Bed	0.7%	100% After Completion
13	Compost Pit (Total)		
a	Bio-Compost	2.0%	100% After Completion
14	Open Gym/Exercise Area	2.5%	50% on Procurement of Material, 50% on completion of Work
15	Collection Pond	2.2%	50% on Procurement of Material, 50% on completion of Work
16	Pathway	3.0%	50% on Procurement of Material, 50% on completion of Work
17	Natural Trail	0.1%	100% After Completion
18	Sculpture	2.3%	50% on Procurement of Material, 50% on completion of Work
19	Sculpture Garden	6.7%	20% on bed Preparation (Cutting/Filling, excavation of pits for plants, manuring), 50% on procurement of plants & Planting 15% on completion of construction period.
20	Maze Garden		
21	Topiary garden		
22	Flower Bed		
23	Agri Land & Herbal Garden		
24	Edible Garden		
25	Multipurpose ground		
26	Meditation/Yoga Ground		
27	Children's Park	3.4%	20% on bed Preparation (Cutting/Filling,

S.N o.	Amenity Blocks	% of Payment	Payment Disbursement Schedule
28	Senior Citizen Park		excavation of pits for plants, manuring), 50% on procurement of plants & Planting & procurement of equipment & installation 15% on completion of construction period.
29	Orchard		50% on Procurement of Material, 50% on completion of Work
30	FRP Dustbins	0.1%	100% After Completion
31	Picnic Lawn	0.3%	100% After Completion
32	Feature Wall	0.2%	100% After Completion
33	Electrical Room	5.5%	40% on Structure Completion upto Roof level, 40% on Roofing & Flooring Completion, 20% on lighting, Fixtures & Finishing Works
34	Electrical & Mechanical Works		
a	External Electrical Services, Supplying and installation of 12.5 h.p. coupled pumping set with electronic controller make like KSB/ kirlosker etc. or equivalent, Water Supply to Parks & Gardens : Distribution line upto 50 mm dia, Trench for services	6.0%	50% on Procurement of Material, 50% on completion of Work
b	Supply and erection of Lighting pole 7mtr including Supply, installation, Testing & commissioning of LED lights.	0.7%	50% on Procurement of Material, 50% on completion of Work
c	Supply and erection of Lighting pole 3mtr including Supply, installation, Testing & commissioning of LED lights.	5.5%	50% on Procurement of Material, 50% on completion of Work
d	CCTV System, Solar Photo Voltaic Power generation System	4.1%	50% on Procurement of Material, 50% on completion of Work
35	Misc. Civil Works Items		
a	Bore Hole	3%	100% After Completion
b	Water Tank	0.9%	100% After Completion
c	Providing & Installation Automatic Green FRP Bio Digester For 10000 Ltr Septic Tank including bio digester microorganism	1.8%	100% After Completion
36	O&M Services	12.1%	Half yearly equal instalments for 4 years during operation & maintenance period