



76-C, SECTOR-18, GURUGRAM-122015, HARYANA

TENDER DOCUMENT FOR

Civil works of setting up Farm for the “Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh

WAP/INFS-II/BAGTHAN/2024-25/02

**Date:
03/06/2024**

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NOTICE INVITING TENDER (NIT)

NOTICE INVITING TENDER (NIT)

WAP/INFS-II/BAGTHAN/2024-25/02

Date: 03/06/2024

WAPCOS Limited (A Govt. of India Undertaking), invites **“Online Electronic Tenders”** from experienced Agencies and competent bidders for the work as per the following details:

1.	Name of Work / Project	:	Civil works of setting up Farm for the Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh
2.	Site / Location	:	Bagthan, District Sirmour, Himachal Pradesh Coordinates of the site are 30°41'21.9"N 77°16'26.0"E
3.	Website for viewing tender	:	www.wapcos.co.in and https://etenders.gov.in/eprocure/app
4.	Website for Registration/ Procurement/ uploading of Tender and also viewing & procurement of the Corrigendum/ Addendum, if any.	:	https://etenders.gov.in/eprocure/app
5.	Approximate Estimated Cost of Work	:	Rs. 3,02,05,911/- (Exclusive of GST)
6.	Cost of Tender Document	:	Rs. 5,000/- (in form of RTGS/NEFT/Demand Draft in favor of WAPCOS LIMITED payable at Gurugram and it is non-refundable) (Scan copy of RTGS/NEFT/DD is to be uploaded along with Technical bid)
7.	Amount of Earnest Money Deposit	:	2% of Estimated Cost i.e. Rs. 6,04,118/-
8.	Date of start of work	:	Within 14 days of the issue of LOA
9.	Project Completion Period	:	12 Months from the Date of Award or handing over of site, whichever is later
10.	Performance Guarantee	:	5% of Tendered value
11.	Security Deposit/Retention Money	:	2.5% Tendered value
12.	Defect Liability Period	:	1 Year
13.	Validity of Bid/Tender	:	120 Days from Bid Opening date
14.	Site Visit	:	Bidders are advised/encouraged to visit the site for actual assessment of the project site location and its consequences during execution of work.
15.	Pre Bid Meeting (Online)	:	The bidders who are interested in attending the pre-bid meeting may send their contact details viz. organization name, Name of the official, email address, mobile number etc. to hsu@wapcos.co.in at least two working day prior to the pre-bid meeting. The link to attend the Pre-Bid Meeting will be communicated through email to the interested bidders.

16.	Date of pre-bid meeting (Online)	:	N/A
17.	Last date & time of Procurement / download of tender Document	:	18/06/2024 up to 13:00 hours, as per the condition of e- Tendering, the bidder must officially procure/ download the tender documents from the ETS portal (https://etenders.gov.in/eprocure/app) in order to bid before the date and time given for procurement.
18.	Last date & time for online submission of Technical & Financial Bid	:	18/06/2024 up to 16:00 hours
19.	Offline Submission of Technical Document, Tender Fees and EMD etc. as detail in Tender for bidders.	:	18/06/2024 up to 16:00 hours in the office of Sr. Executive Director (INFS-II), WAPCOS Ltd., 76-C, Sector-18, Gurugram-122015, Haryana
20.	Online opening of Technical Bid	:	19/06/2024 at 16:00 hours
21.	Online opening of Financial Bid	:	Will be Intimated to Technically Qualified Bidders.
22.	WAPCOS Communication address during Tendering and execution of works	:	Sr. Executive Director (INFS-II) WAPCOS Limited. 76-C, Sector-18, Gurugram-122015, Haryana Email: hsu@wapcos.co.in Contact No. +91-124-2399427 / 431
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 website. Bidders are advised to visit above specified website 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 tender document has to be submitted online on website [https:// www.etenders.gov.in](https://www.etenders.gov.in)

The purpose of this NIT is to provide interested parties with 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

- i. Principal Owner/Client shall mean “Department of Animal Husbandry (DoAH), Government of Himachal Pradesh”
- ii. Joint Ventures / Associations are strictly not allowed.
- iii. 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.
- iv. 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.
- v. No reimbursement of cost of any type or on any account will be paid to persons or entities submitting their Bid.
- vi. 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.
- vii. It is hereby declared that WAPCOS is committed to follow the principle of transparency, equity and competitiveness in public procurement.
- viii. 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**

**Sr. Executive Director (INFS-II)
WAPCOS Gurugram**

SECTION-I

INSTRUCTION TO BIDDER

SECTION 1 INSTRUCTION TO BIDDER

1.1 SPECIAL INSTRUCTION TO BIDDER FOR E- TENDERING

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

More information useful for submitting online bids on the [Www.eprocure.gov.in](http://www.eprocure.gov.in) may be obtained at: <https://etenders.gov.in> / wapcos.co.in

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: [https://etenders.gov.in / wapcos.co.in/eprocure/app](https://etenders.gov.in/wapcos.co.in/eprocure/app)) by clicking on the link “Online bidder Enrollment” on the etenders.gov.in / wapcos.co.in 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 [Www.eprocure.gov.in](http://www.eprocure.gov.in) .
- 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.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the [Www.eprocure.gov.in](http://www.eprocure.gov.in) , 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 [Www.eprocure.gov.in](http://www.eprocure.gov.in) .
- 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 [Www.eprocure.gov.in](http://www.eprocure.gov.in) 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.

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.*

SUBMISSION OF BIDS

- 1) 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.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD 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.
- 5) 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.
- 6) 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.

- 7) 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.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) 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.
- 10) 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.

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 Www.eprocure.gov.in in general may be directed to the 24x7 Www.eprocure.gov.in Helpdesk.

1.2 BID SUBMISSION

The entire bid-submission would be online process through ETS. Broad outline of submissions are as follows:

- Technical Bid (Envelope-I of the Tender Document)
- Financial Bid (Envelope-II of the Tender Document)

1.3 OFFLINE SUBMISSION OF DOCUMENTS BY BIDDER

The Bidder shall submit following document offline in separate sealed envelopes also.

Technical Qualification Documents in original as mentioned in "Section- II - Selection and Qualifying Criteria" Original EMD, Tender Document fee in the mentioned form.

1.4 MINIMUM REQUIREMENTS AT BIDDER'S END

The Computer System having configuration with minimum Windows 7 or above, and
Broadband Connectivity.

- Microsoft Internet Explorer 7.0 or above
- Digital Certificate(s)

1.5 INSTRUCTION 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) The Schedule of Quantity is given in Section - 8. The tenderer has to quote their offer in Item Rate in Schedule of Quantities. The Item-Rate shall be quoted up to 2 decimals. The tenderer shall quote rate(s) in figures as well as in words. In case of any discrepancy between the two, rate(s) quoted in words shall prevail. In case of discrepancy between quoted rate and amount, rate shall prevail. The payment will be made as per the actual work done and item wise measurement basis. Bidders are advised to examine the available Cost Index/ Market Rate while submitting the tender.
- b) Bidders are advised to quote their rates including the lead/lift/carriage of material at site as per the site conditions. No request for the lead/lift carriage shall be considered after the award of the work.
- c) 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, and conditions of contract, local conditions and other factors having bearings on the execution of the work.
- d) 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:
- e) "Corrupt Practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
- f) "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;
- g) "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;
- h) "Collusive Practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.
- i) 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 incompetent 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.
- j) 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.

- k) 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.
- l) The Contract shall be governed by each SECTION OF TENDER DOCUMENT i.e. instructions to bidders, selection & qualifying criteria, 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.
- m) 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 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.
- n) 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
- o) 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.

1.6 EARNEST MONEY DEPOSIT (EMD)

- a) An EMD in the form of an Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's cheque, Bank Guarantee from scheduled/nationalized/commercial banks or payment online in an acceptable form, safeguarding the purchaser's interest in all respects of the value as specified in the "NIT" may be submitted in favour of "WAPCOS Limited" payable at New Delhi /Gurugram.
- b) **The Bank Guarantee should be valid for 180 days from bid opening date.** The hard copy of the original instrument in respect of EMD must be submitted at the address as mentioned in NIT as a part of Technical Bid on or before bid opening date and time as specified. Bid will not be accepted if original payment instrument against the submitted bid are not reached by the specified date and time.
- c) Bids not accompanied with EMD shall be rejected as non-responsive.
- d) The EMD of the unsuccessful bidders would be returned within 30 days of signing of the contract with the successful bidder.
- e) Format of the EMD is mentioned is Annexure II.
- f) The bank details of WAPCOS Limited are:
- g) Account Number – 193502000000405

- h) A/c Holder – WAPCOS Limited
- i) Bank Name – Indian Overseas Bank
- j) Branch name: NHB, Gurugram
- k) IFSC code: IOBA0001935

- l) Unsuccessful bidder's EMD will be released after award of work to the Successful bidder.
- m) Bid Security/EMD shall be refunded to the successful bidder on receipt of Performance Guarantee.

Forfeiture of EMD

The entire EMD shall be forfeited by WAPCOS Limited in the following events:

1. If the Bidder varies or modifies its proposal in a manner not acceptable to the tender inviting authority (TIA) after opening of Bid during the validity period or any extension thereof.
2. If the Bidder tries to influence the evaluation process or canvassing of any kind.
3. If the Bidder/s selected as 'Service Provider/s' chose to withdraw the Bid before the finalization process (failure to arrive at consensus by both the parties shall not be construed as withdrawal of Bid by the Bidder).

The Earnest Money Deposit as mentioned in NIT and shall also be submitted in physical form in courtesy of WAPCOS Ltd payable at Gurugram.

1.7 COST OF BIDDING

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

1.8 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.

1.9 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. In case tenderer revokes, cancels, or varies his tender in any manner without the consent of WAPCOS Limited, within this period, his earnest money will be forfeited.

1.10 ANNEXURES

The successful Bidder shall submit the following documents and follow the guidelines as per "**Section of Annexures**" mentioned in tender document.

Annexure- I	:-	GUARANTEE BONDS / AFFIDAVIT FOR WORK
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Annexure- II	:-	PERFORMANCE SECURITY
Annexure- III	:-	ADVANCE PAYMENT BANK GUARANTEE
Annexure- IV	:-	SAFETY CODES

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

APPENDIX-I
BANK GUARANTEE FORMAT FOR EMD
(To be submitted on Stamp paper of At least Rs.1000)

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 thisday of month..... year.

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 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 before..... (indicate a period twelve months after the date of issue of Bank Guarantee).

DATE

SIGNATURE:

(Signature of Witness)

SEAL

SECTION – II

SELECTION AND QUALIFYING CRITERIA

SECTION 2 SELECTION AND QUALIFYING CRITERIA

2.1 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 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. The bidders are advised to visit the sites before quoting the Tender. The quoted amount by the contractor shall be all-inclusive and shall apply to all heights lifts, leads and depths and nothing extra shall be payable on this account.

BRIEF DESCRIPTION OF PROJECT AREA

The proposed site for Civil works of setting up Farm for the "Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh . Total site area is 10064.48 Sq Mtr (1.006 Hect) out of which 8328 Sq. Mtr. (0.8328 Hect) is allocated for proposed development as the remaining parcel of 1736.61 Sq. Mtr. (0.1737 Hect) is already engaged in other ongoing program of Fodder development. There is existing structure on site which comprising of following as shown in topographical survey:

- Sheds
- Building
- Gate and wall
- Water tank

The geographical coordinates of the site are 30°41'21.9"N 77°16'26.0"E .

2.2 PRE-BID MEETING

The pre-bid meeting will not be held. Bidder can ask queries in writing to tender inviting authority (WAPCOS LIMITED) before 2 days of tender first submission date as mentioned in NIT.

2.3 QUALIFYING CRITERIA: ONLINE TECHNICAL BID SUBMISSION

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

The Technical Bid shall be uploaded **with properly readable 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 of the following document not uploaded/submitted or having misleading information shall be out rightly rejected as per discretion power of tender inviting authority. The documents which are not numbered, bids submitted after closure of submission date & time shall not be entertained and shall be summarily rejected.

Format of Check List

Sl. No.	Particular of Document	Yes	No	Page Nos
a)	Authorization Letter to sign the Tender on bidder's original letter head or Power of attorney from the competent authority of the firm			
b)	Scanned copy of EMD as mentioned in NIT.			
c)	Scanned copy of Demand Draft for Tender Fees of the Amount as mentioned in NIT.			
d)	Letter of Transmittal for Technical Bid in prescribed format on bidder's original letter Head			
e)	Yearly financial Turnover and Audited Balance Sheet for Last 5 (Five) years ending on the financial year 2022-23 duly certified by Chartered Accountant. (Form-A).			
	The contractor should not have incurred any financial loss (profit after tax should be positive) in more than two years during last Five years ending 2022-23 duly audited and Attested by the Chartered Accountant. (Form-A).			
	Turnover: Average annual financial turnover of the bidder should be at least 50% of the estimated cost of work during the last three (3) consecutive financial years ending 2022-23. This should be duly audited by the 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)			
f)	The contractor should also have satisfactorily completed the similar type & nature of works as mentioned below			

	<p>during the last seven years ending s ending previous day of last date of submission of tender (Form-B).</p> <ol style="list-style-type: none"> Three similar* completed works costing not less than the 40% of cost during last 7 years. or Two similar* completed works costing not less than 50% of cost during last 7 years. or One similar* completed work costing not less than 80% of cost during last 7 years. <p>“Similar Work” refers to a work involving “Construction of residential/non-residential/industrial buildings/ RCC framed building including Mechanical, Electrical & Plumbing works for Central Government/ State Government/ Central or State Public Sector Undertakings”.</p> <ul style="list-style-type: none"> The bidder shall submit Completion Certificate(s) mentioning name, nature of work, work completion amount in Indian Rupees, Date of commencement, Stipulated Date of completion and Actual date of completion along with respective Work Order/ Contract agreement from respective Owner/Client duly signed by authority having rank of Executive Engineer (or similar rank) and above. The value of the work given in NIT is without GST / Taxes; hence the value of work declared in completion certificate is to be without GST/taxes. For the works, where the Taxes or GST is not clearly defined, the value of works shall be considered as including GST. For the works completed prior to 01.01.2022, a GST @12% shall be deducted to establish the value of work done and for the works completed on and after 01.01.2022, @18% shall be deducted to establish the value of work done. The value of executed works shall be brought to the current level by enhancing the actual value of work done at a simple rate of 7% per annum, calculated from the date of completion of last day of the month previous to the one in which applications are invited. The copy/ copies of Completion Certificate(s) shall be verified from the issuing authority/organizations prior to award of works. In case the work / certificates are 			
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	not verified by the issuing authority, WAPCOS reserve the right to not consider the award of work.			
g)	<p>The bidder should not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended. Accordingly, Bidder shall submit a Solvency certificate in Original from a Scheduled Commercial/Nationalized Bank in original for a sum of at least 40% of the estimated cost.</p> <p>(Solvency Certificate must have been issued after the date of 13.03.2024 & be addressed to the tendering authority quoting the name of the work).</p>			
h)	Name, Address, details of the Organization, Name(s) of the Owner/Partners/Promoters and Directors of the firm / company. (Form-C)			
i)	Copy of P.F and PAN Number			
	<p>Goods and Service Tax (GST): Bidders are advised to get themselves registered for GST at place of supply/work, which is 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.</p>			
j)	<p>The bidder should be an Indian Registered Company under Companies Act 1956/ Proprietorship Firm/ Partnership Firm. Joint Ventures are not accepted. Copy of Certificate of Incorporation/ Registration / Partnership Deed or any other relevant document, as applicable, should be submitted along with a copy of address proof.</p> <p>Note: Proprietor firms shall submit registration details or shall submit the copy of relevant page of Passbook for the Current Account in the name of Proprietor Firm.</p>			
k)	<p>Bidder should not be blacklisted/ debarred by any Government / semi government department. Bidders shall give undertaking for not being involved in any form of corrupt and fraudulent practices. (Form-D).</p> <p>The Blacklisting Policy of the company is available on official website of WAPCOS Limited. The bidder/tenderer/consultant/contractor have to mandatorily furnish an undertaking addressing the same to Engineer-in-charge in the form of certificate to abide the contents of Blacklisting Policy. The format of undertaking is provided at Annexure (Form-D (1)). Any action in violation of the Blacklisting Policy or to the certificate furnished shall result in cancellation of tender at the stage before or after the award of work.</p>			

l)	Letter of understanding the project site on bidder letter Head (Form-E) .			
m)	No Deviation Certificate in prescribed format in Bidder's Letter Head (Form-F) .			
n)	Consent Letter to execute the Integrity Pact (Form-G) and Integrity Agreement .			
o)	Each page of the all Volume of Tender document & 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.			
p)	FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES, DISQUALIFICATION (Form-H)			
q)	Preference to Make in India 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. 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. The Contractor shall submit a certificate/Undertaking accordingly.			
r)	Undertaking-(Rule 144 (xi) in the General Financial Rules (GFRs), 2017) (Form-I)			

No information relating to financial terms of services should be included in the technical bid. Bids are to be submitted to determine that the bidder has a full comprehension of the tendered work. Where a bidder technical submittal is found non-compliant with the requirement of work, it may be rejected. This process is to assure that only technical acceptable bids are considered for the tendered work.

Bidders who full fill the above requirements shall only be technically qualified. Nonfulfillment of any of the above requirements by any bidder will automatically lead to its technical disqualification. Therefore, bidders are requested to make sure that they submit all the relevant papers which meet all the above-mentioned requirements.

2.4 OFFLINE SUBMISSIONS OF TECHNICAL DOCUMENTS

The Bidder shall submit following Technical Document offline also.

All the documents in ORIGINAL, mentioned in “Section-II: Selection and Qualifying Criteria” in Para 3: Qualifying Criteria for Technical Bid i.e. at Sr. No. (a) to (r) except (o) along with the 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. ***(Do Not Submit the hard copy of document at Sr. No. (o) above with the document of Offline Submission).***

Originals EMD and Tender 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 “Technical Qualification 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.

The offline submissions as mentioned above shall be submitted on WAPCOS address mentioned in NIT as per date & time mentioned in NIT otherwise bids are liable to be rejected.

2.5 CONTENTS OF FINANCIAL BID

The Financial Bid should be uploaded separately along with Technical bid before last date & time of submission of Tender Document. **No physical submission of Financial Bid is required.**

The bidder shall quote rates of BOQ items keeping in view all associated costs with the project including any out of pocket / mobilization expenses / custom duty (if any), Buildings and other construction worker’s welfare Cess, TDS, taxes (except GST) if any applicable as per Govt. terms, shall be paid by the Contractor. The quoted rates should be exclusive of all taxes/GST. The Goods and Services Tax (GST) shall be paid to the contractor on reimbursable basis.

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.

Do not submit the Summary of Cost (BOQ) at the time of submission of technical bid. The financial proposal is to be filled by bidder in the excel file attached in www.eprocure.gov.in . After that, same filled excel file, will be uploaded by bidder at the submission of Financial/Price Bid.

Do not submit the Summary of Cost (BOQ) at the time of submission of technical bid.

The financial proposal is to be filled by bidder in the excel file attached in www.eprocure.gov.in . After that, same filled excel file, will be uploaded by bidder at the submission of Financial/Price Bid.

2.6 OPENING OF FINANCIAL BID

The financial bids of the technically qualified bidders shall be opened at the notified date.

2.7 AWARD CRITERIA

After closing of Technical & Financial Bid process, WAPCOS Limited will award, the contract to the bidder, whose tender has been determined to be substantially responsive, complete and in accordance with the tender document, and whose total evaluation price for the undertaking the project as detailed in the scope of work is the lowest. If the financial bids of lowest two bidders are equal, then the tender will be treated as cancelled and shall be retendered as per the rules of WAPCOS Limited.

For & on behalf of Tenderer

SECTION – III

GENERAL CONDITIONS OF CONTRACT

SECTION 3 GENERAL CONDITIONS TO CONTRACT

3.1 GENERAL RULES & DIRECTIONS.

General Rules & Direction	<p>The work proposed includes Civil works of Setting up Farm for the “Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh on Item Rate. 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.</p>
	<p>In the event of the tender being submitted by a 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.</p>
	<p>Receipts for payment made on account of work, when executed by a 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.</p>
	<p>Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. 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. The rate(s) 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 (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender online. The lowest tender shall be decided on the basis of revised offer. In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of</p>

		<p>individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractors.</p> <p>Contractor, whose earnest money is forfeited because of no submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work.</p>
		<p>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 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 as per NIT.</p>
		<p>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</p>
		<p>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.</p>
		<p>Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.</p>

		<p>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.</p>
		<p>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.</p>
		<p>All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. 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. 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.</p>

		<p>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.</p> <p>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 the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.</p>
		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.
		All the taxes except GST applicable in respect of this contract shall be payable by the Contractor and WAPCOS will not entertain any claim whatsoever in respect of the same.
		The contractor shall give a list of WAPCOS employees related to him. 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.
		The tender for composite work includes all required activities for Civil works of setting up Farm for the "Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh as per Technical specification to complete the work related to this project directed by Engineer- in – Charge.
		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 WAPCOS may in his discretion, without prejudice to right or remedy available in law, 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.

3.2 CONDITION OF CONTRACT

Definition	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	<p>In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them: -</p> <ul style="list-style-type: none"> i. Principal Owner/Client shall mean “Department of Animal Husbandry (DoAH), Government of Himachal Pradesh” ii. “Employer” shall mean “WAPCOS Limited”, A Government of India undertaking- Ministry of Water Resources, River Development & Ganga Rejuvenation 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, for execution of the Work/ Project as mentioned in NIT. iii. The “Company / WAPCOS” shall mean WAPCOS Limited. iv. The expression works or work 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. v. The Site shall mean the proposed Civil works of setting up Farm for the “Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh. The geographical coordinates of the site are 30°41'21.9"N 77°16'26.0"E . vi. The Bidder shall mean the firm or company as defined in Section – II QUALIFYING CRITERIA of this NIT, 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

		<p>are participating in Bidding process and will Execution the project after award of the works as Contractor.</p> <p>vii. The Engineer-in-Charge shall mean 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.</p> <p>viii. Accepting Authority shall mean the authority mentioned in Special Conditions of Contract.</p> <p>ix. Tenderer / Bidder shall mean the firm/party who intends to participate in this Notice Inviting Tender.</p> <p>x. 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.</p> <p>xi. 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.</p> <p>xii. 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.</p> <p>xiii. District Specifications shall mean the specifications followed by the State Government in the area where the work is to be executed.</p> <p>xiv. The Contractor/Successful Bidder shall mean the firm or company whose bid has been accepted by WAPCOS and 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</p>
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		<p>firm or company and the permitted assignees of such individual, firm or company.</p> <p>xv. Consultant shall mean any consultant nominated by the WAPCOS</p> <p>xvi. Tendered value means the value of the entire work as stipulated in the letter of award.</p> <p>xvii. Date of commencement of work: The date of commencement of work shall be the date of start as specified in Special Conditions of Contract or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.</p>
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 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 (Not Applicable) rates & prices quoted in the Schedule of Quantities, 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, the Specifications and/ or the Drawings, the following order of preference shall be observed: - i. Description of Schedule of Quantities ii. Particular Specification and Special Condition, if any. iii. Drawings. iv. 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, expression of work 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 corrigendums, 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. Agreement & acceptance of the following: a. Various standard clauses with corrections up to the date stipulated in Special Conditions of Contract along with annexures thereto. b. Safety Codes. 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 contract

3.3 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 Banker's Cheque of any scheduled bank/Demand Draft of any scheduled bank/ or Fixed Deposit Receipts or Bank Guarantee of any Scheduled Bank or the State Bank of India in accordance with the form annexed hereto. 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.

The amount of 5% of Performance Bank Guarantee (PBG) will increase if L1 Bidder will quote abnormally low cost.

The decision to decide abnormally low cost will be in full discretion of the tender evaluation committee of WAPCOS.

- 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.
- iii. The Engineer-in-Charge shall not 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 WAPCOS.
- v. The Performance Guarantee shall be refunded to the Contractor soon after the completion of works and issuance of the completion certificate.

Note: Confirmation of all Bank Guarantees submitted to WAPCOS by bidders may be sought from issuing bank through Structured Financial Messaging System (SFMS), as per details given below:

"Indian Overseas Bank, NHB, Gurgaon,

Branch Code: 1935

IFSC Code: IOBA0001935

Beneficiary: WAPCOS Limited"

Acknowledgement Number so generated may be provided along with the BG's.

CLAUSE 1A: RECOVERY OF SECURITY DEPOSIT

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 each running and final bill till the sum deducted will amount to security deposit 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 the form of Government Securities or fixed deposit receipts. 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.

The Security Deposit shall be released after successful completion of Defect Liability Period.

CLAUSE 2: COMPENSATION FOR DELAY

If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the purview of the Contract on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the authority specified in Special Conditions of Contract (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been

i. Compensation for delay of work @ 1.0 % per week of delay to be computed on per day basis on total work value.

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.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the WAPCOS. 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 unworkmanlike 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 within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- 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, 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 (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the WAPCOS.
- 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.

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 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 & 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.

As soon as possible after the Contract is concluded, the Contractor shall submit a Time and Progress Chart and get it approved by the WAPCOS. 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.

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) any other cause which, in the absolute discretion 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.

Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form to the authority as indicated in Special Conditions of Contract. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

In any such case, the authority as indicated in Special Conditions of Contract may give a fair and reasonable extension of time.

Such extension shall be communicated to the Contractor by the authority as indicated in Special Conditions of Contract in writing.

CLAUSE 6: MEASUREMENT 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 measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties. If for any reason, the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the WAPCOS shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three

(3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

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 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 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: COMPLETION CERTIFICATE & 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 after defect liability period of 60 month from the completion of the work is over. 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 8: CONTRACTOR TO KEEP SITE CLEAN

When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing, color washing, painting etc., on walls, floor, windows, etc shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done: without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in- Charge shall have the right to get this work done at the cost of the contractor or through any other agency. Before taking such action, the Engineer-in-Charge shall give ten days-notice in writing to 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 completion. 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.

CLAUSE 9A: PAYMENT OF CONTRACTOR'S BILL TO BANK

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 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

CLAUSE 10: MATERIAL TO BE PROVIDED BY CONTRACTOR

The contractor shall, at his own expense, provide all materials/equipment. 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/equipment 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/equipment 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/equipment testing lab at the site/manufacturing place for conducting routine field tests. The lab shall be

equipped at least with the testing equipment as specified in Special Conditions of Contract.

Clause 10A: Secured Advance on non-perishable materials

The contractor, on signing an indenture bond in the prescribed 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 excluding taxes 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. Statutory Taxes like income tax etc. will be deducted from secured advance payment.

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.

Clause 10B:

i. MOBILIZATION 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 Commercial 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.

Installments of Mobilization advance except the first installment shall be released only after receiving the utilization certificate supported by Bank statement of the said account showing the disbursement of mobilization advance by the Contractor.

ii. INTEREST & RECOVERY

The mobilization advance mentioned above 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, 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 per cent 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 eighty per cent 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.

CLAUSE 11: WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATION, DRAWINGS, ORDER 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 WAPCOS 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.

All works are to be executed in accordance with the specifications, all drawings, details of items etc. given with this tender document and vetted design/drawing by WAPCOS/Engineer in Charge.

In case specification of any item is not clear, CPWD/BIS with upto date correction slips issued on the last date of submission of tender is applicable.

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.

CLAUSE 12: DEVIATION / VARIATIONS EXTENT & PRICING

WAPCOS 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.

12.2(A) DEVIATIONS, EXTRA ITEMS AND PRICING

Deviations shall be as per SCC

12.2(B) DEVIATIONS, SUBSTITUTED ITEMS AND PRICING.

Deviations shall be as per SCC

12.2(C) DEVIATIONS, DEVIATED QUANTITIES, PRICING

Deviations shall be as per SCC

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

If at any time after acceptance of the tender, WAPCOS 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, WAPCOS 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.

CLAUSE 14: CARRYING OUT PARK 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 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:

- i. Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- ii. Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

The WAPCOS 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 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 WAPCOS 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 WAPCOS, 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 WAPCOS, (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 WAPCOS 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.
 - d) 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 WAPCOS.
- (i) 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.
- (ii) 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 SPECIFICATION

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 WAPCOS, Engineer in charge, 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 WAPCOS or its authorized subordinates in charge of the 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 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 WAPCOS in its 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 WAPCOS 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 WAPCOS 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 60 (sixty months) after a certificate final or otherwise of its completion shall have been given by WAPCOS 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 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 one 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. **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, machinery, tools & plants, yard for Preparatory work for Pre-Stressed panels 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 WAPCOS 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 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 fulfil 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 unauthorized 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) WAPCOS 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.
- v. (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 done day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, WAPCOS 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 WAPCOS concerned.
- vi. In the case of Union Territory of Delhi, however, as the all-inclusive minimum daily wages fixed under Notification of the Delhi Administration No.F.12(162)MWO/DAB/43884-91, dated 31-12-1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.
- vii. 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.
- viii. 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.
- ix. 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.
- x. 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.

- xi. 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, WAPCOS shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19D

The contractor shall submit by the 4th and 19th of every month, to WAPCOS, 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 19E

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 19F

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 19F

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 19H

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. 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.
- ii. 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.
- iii. 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.
- iv. 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.
- v. 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 gobri on both sides. The floor may be kutcha but plastered with mud gobri 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.

- vi. The contractor(s) shall provide each hut with proper ventilation.
- vii. All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.
- viii. 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
- ix. 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.
- x. The site selected for the camp shall be high ground, removed from jungle.
- xi. 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.
- xii. Drainage - The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.
- xiii. The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- xiv. 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 19I

WAPCOS 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.

CLAUSE 19J VARIATION, OMISSION, ADDITION & ALTERATION

The Contractor shall not modify the work except under direction in writing by the company. The quantities provided in the Schedule of work are provisional only, which may vary up to any extent or may be deleted altogether. The quoted rate of each item shall remain firm till completion of contract. The company reserves the right to alter, amend and omit or otherwise vary the quantities as may be necessary but such variation will be governed by CPWD Works Manual 2019 SOP 4/8 Statement (xvi), also mentioned at SCC Clause 12. Payment shall be made as per actual execution.

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 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, & abide by the rules of OPWD Code. 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 BE SUBLET. ACTION IN CASE OF INSOLVENCY

The contract shall not be assigned or sublet without the written approval of WAPCOS 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 a 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

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 & 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

Any disputes or differences including those considered as such by only one of the parties, arising out of or in connection with the Contract shall be to the extent possible settled amicably between the parties. If amicable settlement cannot be reached, then all disputed issues shall be settled by arbitration.

Arbitration

In the event of any question, dispute or difference arising out of or in connection with the WORK under this agreement, whether during the progress of the work or after its completion, abandonment or breach of Contract, the parties agree to promptly negotiate a reasonable settlement thereof amicably. Unless otherwise specified, in all cases of disputes which cannot be settled by mutual negotiations, the matter shall be referred for Arbitration, for which purpose the Chairman, WAPCOS shall be the sole Arbitrator, whose decision shall be final and binding on both the parties.

“Any dispute, controversy or claims arising out of or relating to the work 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 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 WAPCOS is only working as Intermediary between the Associate/Sub-Consultant/Sub-Contractor and the Principal Employer/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/Agreement/Work Order/Arrangement between Principal Employer/Client & WAPCOS, Principal Employer/Client shall also be made party to the said Arbitration proceedings. Also, the award including costs if any passed against WAPCOS and costs incurred in the proceedings shall be the sole responsibility of Principal Employer/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 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 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 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/ As instruction given by Engineer-in-Charge. 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 finalization 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, 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 pending finalization of adjudication of any such claim.
- b) 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 WAPCOS will be kept withheld or retained as such by 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, 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.
- c) 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 Government 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 29: 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 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 WAPCOS will be kept withheld or retained as such by 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 31: WATER SUPPLY, IF AVAILABLE

Deleted

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. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Schedule 'F'/SCC. Even if the contractor (or partner(s) in case of firm/ company) is himself / herself an Engineer, it is necessary on the part of the contractor to employ principal technical representative / technical representative (s) as per stipulation in Schedule 'F'. 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 as specified in Schedule 'F' 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 35: CONDITION RELATING TO USE OF ASPHALTIC MATERIAL

Deleted

CLAUSE 36: EMPLOYMENT OF TECHNICAL STAFF & 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.
- ii. 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. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Special Conditions of Contract. 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.

- iii. 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 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.
- iv. 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 (nonrefundable) shall be effected from the contractor as specified in Special Conditions of Contract 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.
- v. 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.

- vi. 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 37: LEVY / TAXES PAYABLE BY CONTRACTOR

- i. All the taxes except GST applicable in respect of this contract shall be payable by the Contractor and WAPCOS will not entertain any claim whatsoever in respect of the same.
- 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 WAPCOS 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 WAPCOS 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 38: CONDITION FOR REIMBURSEMENT OF LEVY / TAXES IF LEVIED AFTER RECEIPT OF TENDER

- i. All tendered cost shall be exclusive of all taxes/GST and levies 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 there upon 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.
- 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 WAPCOS 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, 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 39: 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 40: 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 grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

CLAUSE 41: NOT 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 44: 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 45: RELEASE OF SECURITY DEPOSIT AFTER LABOUR CLEARANCE

Deleted

CLAUSE 46 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 is 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 47 Change of Quantity

The quantity mentioned in the schedule of work is provisional. The company reserves the right to vary the quantities as may be necessary but such variation will be governed by CPWD Works Manual 2019 SOP 4/8 Statement (xvi), also mentioned at SCC Clause 12. Payment shall be made as per execution.

2.0 CONSTRUCTION AND ERECTION PHASE & 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 does not 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 worker 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 are not 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 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 leachate (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 equipment's with proper access and proper maneuverability of the vehicles carrying the materials. While planning the layout, the requirements of various materials, components and equipment's 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 handover. 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.
- 2.22 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

- a) 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.
- b) 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).
- c) 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.
- d) 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.
- e) The contractor shall ensure that sand from approved source is used in place of sand in an all concreting works unless specifically instructed otherwise by the Engineer- in- charge.
- f) 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.
- g) The contractor shall ensure that nontoxic anti-termite and other pest control is strictly used.
- h) 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.
- i) All plumbing and sanitary fixtures installed shall be as per the requirement of the ofthe GRIHA and shall adhere to the minimum LPM and LPF mentioned.
- j) 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.

- k) 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.

2.27 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.

2.28 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 48 PAYMENT TERMS

1. PAYMENT TERMS

All the payments will be made on the basis of actual quantity of work executed and as per the unit rate quoted in the price bid and on receipt of payment from the client. No extra amount will be paid over and above the executed work. GST payment will be made on submission of proof/ challan.

The Agency shall submit his monthly running account (RA) bill within 7th of every month. The RA bill will be released within 30 days from the date of certification of bill after recovery of security deposit/retention and other deductions as applicable.

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 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
- j. The Contractor providing evidence of the validity of the Contractor's Insurances.

Final Bill

Final bill shall be submitted by agency within one month from the date of completion of work and accompanied by the following document

- i. Certificate on completion of work issued by our site based on receipt of taking over certificate from client.
- ii. No claim certificate by agency
- iii. Statement of reconciliation of all payments and recoveries made in the progressive bill.

Security Deposit/Retention Money

2.5% of the value of work done shall be retained towards security deposit from all the payments made to the agency. Security deposit will be released after the completion of Defects liability period (DLP).

Statutory deduction and other recoveries taxes etc. will be deducted as per law and terms of the contract as applicable.

Note:

1. "10 % value of mobilization advance will get adjusted against RA bills."
2. The mobilization advance bear borne by interest at the rate of 10 per cent 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 per cent 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 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.

Back to Back Payment

The Contractor acknowledges that under the present Work, WAPCOS is only working as intermediary between our client being Principal Employer and

Contractor. Thus, the Contractor unconditionally acknowledges that the payments under the present Contract shall be made proportionately by WAPCOS only on back to back basis i.e., after 21 days' subject to receipt of payment from our client being Principal Employer. The Contractor also unconditionally agree that in the event the payment or part thereof, under the present Contract is not received from Principal Employer/Client, then WAPCOS &/or any of its Employee/Officer shall not be responsible to pay any amount to Contractor. The said condition shall supersede any and all other conditions of Contract between the parties.

2. PAYMENT

WAPCOS Limited shall pay the amount certified in a Certificate of Payment less the amount paid earlier in accordance with Clause 48(3) [Certificate of Payment], no later than [30 (Thirty)] Business Days from the date of such Certificate of Payment.

It is clearly agreed and understood by the Contractor that notwithstanding anything to the contrary that may be stated in the Agreement between WAPCOS and the Contractor; the contractor shall become entitled to payment only after WAPCOS has received the corresponding payment(s) from the Client/ Owner for the work done by the contractor. Any delay in the release of payment by the Client/ Owner to WAPCOS leading to a delay in the release the corresponding payment by WAPCOS to the contractor shall not entitle the contractor to any compensation/ interest from WAPCOS. All payments shall be released by way of e-transfer through RTGS in India directly at their Bank account by WAPCOS.

CLAUSE 49: 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. In this connection, the minimum local content shall be 50% and the margin of purchase preference shall be 20%.
- 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.

CLAUSE 50: 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.
- vi. 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 4 SPECIAL CONDITIONS OF CONTRACT

4.1 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		
8	Schedule of Materials to be	Not Applicable
19	List of works from	Not Applicable
DEFINITIONS		
Added	Owner/Client shall mean Department of Animal Husbandry (DoAH), Government of Himachal Pradesh.	
2(iii)	Work/Project Means: As mentioned in NIT	
2(iv)	Site / Location 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 Contractor profits	15%
2(xi)	Standard Schedule of Rates Schedule of Rates (Civil)	HP SOR 2020
2(xvi)	Date of Commencement of work	5 days after date of award of Work
CLAUSES OF CONTRACT		
Clause 1	Performance Guarantee	Applicable
	i. Performance Guarantee.	5% of Tendered Value
	ii. Time allowed for submission of Performance	21 days
	iii. Validity of Performance Guarantee	The Performance Guarantee shall should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the contractor, including Defect Liability Period (DLP).

	iv. Return of Performance Guarantee	On Successful completion of the Work & issue of completion certificate by the Owner of the Work.
Clause 1A	Security Deposit	Applicable 2.5 % of Tendered Value
	Release of security Deposit	After completion of the Defect Liability Period and submission of "No Defects Certificate"/ "Taking over Certificate" issued by the Owner of the Work
Clause 2	Compensation for Delay	Applicable 1% of the cost of work per week. (Maximum up to 10% of the Contract price)
Clause 2A	Incentive for Early Completion	Not Applicable
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	5 to 10 days
	Stipulated time of completion of project	As Mentioned in NIT
Clause 6	Measurements of Work Done	Applicable
Clause 6A	Computerized Measurement	Applicable
Clause 7	Payment on Intermediate Certificate to be Regarded as advance	Applicable
New Clause 7A (Added)	Payment	It is clearly agreed and understood by the Contractor that notwithstanding anything to the contrary that may be stated in the Agreement between WAPCOS and the Contractor; the contractor shall become entitled to payment only after WAPCOS has received the corresponding payment(s) from the Client/ Owner for the work done by the contractor. Any delay in the release of payment by the Client/ Owner to WAPCOS leading to a delay in the release the corresponding payment by WAPCOS to the contractor shall not entitle the contractor to any compensation/ interest from WAPCOS. All payments shall be released by way of e-transfer through RTGS in India directly at their Bank account by WAPCOS.
Clause 10	Materials Supplied by WAPCOS	Not Applicable

<p>Clause 10A</p>	<p>Materials to be Provided by Contractor List of Testing Equipment/facility to be provided by the Contractor at site lab</p> <ol style="list-style-type: none"> 1. Cube Testing Machine along with sufficient numbers of cube moulds 2. Slump Cone 3. Vernier Calliper, Screw Gauge, Wire gauge 4. Weighing Balance with weights 5. Rebound Hammer 6. 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. 7. Yard for Preparatory work for Pre-stressed Panels, curing Tank, Platform for panels, storage facility for Construction material, all necessary facility as deemed fit etc. <p>(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).</p>	<p>Applicable</p>
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Clause 10B(i)	Mobilization Advance	<p>Applicable</p> <p>10% of the tendered value on submission of Bank Guarantee Bond from Scheduled Commercial Bank for the amount equal to 110% of the amount of advance and valid for the contract period.</p> <p>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 Client/Owner to WAPCOS)</p> <p>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.</p>
Clause 10B (ii)	Recovery of Mobilization advance	Applicable
Clause 10C	Payment on Account of Increase in Price / Wages due to Statutory Order	Not Applicable
Clause 10CA	Payment due to Variation in Prices of Materials after Receipt of Tender	Not Applicable
Clause 10CC	Payment due to Increase /Decrease in Prices / Wages (Excluding Materials covered under Clause 10 CA) after Receipt of Tender for Works	Not Applicable

Clause 11	Works to be Executed in Accordance with Specifications, Drawings, Orders Etc. Specifications to be followed for execution of work	<p>Applicable</p> <p>The following is added:</p> <p>All works are to be executed in accordance with the specifications, all drawings, details of items etc. given with this tender document and vetted design/drawing by WAPCOS/Engineer in Charge.</p> <p>In case specification of any item is not clear, CPWD/BIS with upto date correction slips issued on the last date of submission of tender is applicable.</p>
Clause 12	Deviations / Variations Extent and Pricing	
	Clause 12.2(a)	<p>ADD:</p> <p>In the case of extra item(s) (items that are completely new and not available in HP SOR), the contractor may within fifteen (15) days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis on the basis of the market rates and the contractor shall be paid in accordance with the minimum of above rates approved by WAPCOS.</p> <p>In case the extra item being the Scheduled Item (as per HP SOR 2020), these shall be paid as per the schedule rate. (plus applicable cost index @ 10.5%). The final rate achieved in this case will be increased or decreased on same percentage as per the percentage of total cost quoted above or below by Contractor in respect of NIT cost, during tendering process.</p>

	Clause 12.2(b)	<p style="text-align: center;">ADD:</p> <ul style="list-style-type: none"> • “The specification mentioned in Tender may be substituted as per the requirement of Owner/ WAPCOS. • In this case of substituted item(s) being SOR item, these shall be paid as per the HP SOR plus applicable cost index (@10.5%) as approved by WAPCOS. The final rate achieved in this case will be increased or decreased on same percentage as per the percentage of total cost quoted above or below by Contractor in respect of NIT cost, during tendering process. • In the case substituted of item(s) (items that are completely new and non- scheduled item in accordance with SOR), the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis on the basis of the market rates and as per provisions of SOR and shall be paid in accordance with rates approved by WAPCOS.
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	<p>Clause 12.2(c)</p> <p>Deviation Limit beyond which clauses 12.2 shall apply for all items</p>	<p>Modification as per CPWD Works Manual 2019 SOP 4/8 Statement (xvi)</p> <p>For maintaining uniformity in works, following deviation limits is stipulated by the authorities approving the NIT's for operation of Clause 12 of the GCC unless there are specific reasons to adopt different deviation limits for a particular work:</p> <p>(a) For construction works</p> <p>The deviation limit to be specified in GCC may be 100% for all the items.</p> <ul style="list-style-type: none"> Modified as "In the case of deviated item(s) beyond the % mentioned above (non-scheduled as per the provision in the SOR, the contractor may within fifteen days of receipt of order shall submit proper analysis on the basis of the market rates and as per the provision in the SOR and shall be paid in accordance with rate approved by WAPCOS. In case the deviated item, beyond the % mentioned above, being the Scheduled Item (scheduled item in accordance with the HP SOR), these shall be paid as per the provision in the latest DSR and as approved by WAPCOS. The final rate achieved in this case will be increased or decreased on same percentage as per the percentage of total cost quoted above or below by Contractor in respect of NIT cost, during tendering process.
Clause 15A	Compensation in case delay supply of material	Not Applicable
Clause 17	Contractor liable for Damages, Defects during Defect Liability Period	<p>Applicable</p> <p>Added/Modified: One year from the date of successful completion of each component of the project in all respect.</p>
Clause 27	Lumpsum Provisions in Tender	Not Applicable
Clause 30	Employment of coal mining or controlled area labour not permissible	Not Applicable

Clause 32	Employment of Technical Staff and employees	Applicable		
Minimum requirement of technical representatives:				
S.no.	Minimum Qualification	Number	Minimum Experience (years)	Designation of Technical Staff
1.	B. Tech (Civil)	1	8 (Having Experience of one similar nature of work)	Project Manager
2.	Diploma (Civil)	1	5	Construction Engineer/ Billing Engineer/ Quality Control & Safety Engineer Control & Safety Engineer
3.	B. Tech (Electrical)	1	4	Electrical Supervisor
Clause 33	Return of surplus material	Not Applicable		
Clause 34	Hire of plant and Machinery	Not Applicable		
Clause 42	Return of Material & Recovery	Not Applicable		
Clause 43	Compensation During War Like Situation	Not Applicable		
Clause 46	Insurance	Applicable		
Clause 48 (Sr. no 3 & 4)	Sr. No. 1 & Sr. No 2 : Payment Terms	The Contractor acknowledges that under the present Work, WAPCOS is only working as intermediary between our client being Principal Employer and Contractor. Thus the Contractor unconditionally acknowledges that the payments under the present Contract shall be made proportionately by WAPCOS only on back to back basis i.e. After 21 days' subject to receipt of payment from our client being Principal Employer. The Contractor also unconditionally agree that in the event the payment or part thereof, under the present Contract is not received from Principal Employer/Client, then WAPCOS &/or any of its Employee/Officer shall not be responsible to pay any amount to Contractor. The said condition shall supersede any and all other conditions of Contract between the parties.		

4.2 ADDITIONAL CONDITIONS

1. The Contractor shall be responsible for consequential effects arising out during the inspection done by WAPCOS or any statutory committee or by any duly authorized representative of WAPCOS, during the progress or any time after the construction. 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/WAPCOS. Rectification of defective works or replacement of sub-standard materials or articles or modifications, as pointed out by WAPCOS will be carried out or replaced/ modified by the Contractor at his own risk and cost. WAPCOS will not pay any extra amount for such rectification or replacement.
2. **Handing Over of the Project:** Contractor will hand over the project to WAPCOS after successful completion of each component of the project in all respect and complete satisfaction of Engineer-In-charge. **The partial handing over of works components shall not be considered.**
3. 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.
4. If any dispute/ hindrance may arise during construction due to any reason whatsoever, the contractor is not liable for any financial claim or damages due to such circumstances.
5. All mass 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/NIT/IIT/ Govt Colleges.**
6. The contractor shall provide fully equipped office for Consultant's Staff, Contractor's Staff, Engineers along with facility of 24 hours electric and drinking water supply, sanitary facilities, furniture and desktop computer of latest version along with printer and internet connection at construction site for finalizing immediate technical solutions/decisions on the site in consultation with Engineer In-Charge so that the work progress may not be hampered."
7. The Contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, etc. nothing extra shall be payable to the agency on this account.
8. 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.
9. Quoted amount by the contractor shall be all inclusive and shall apply to all heights lifts, leads and depths of the building and nothing extra shall be payable on this account.
10. The contractor shall make his own arrangements for obtaining electric connection and water Connection/arrangement (if required). The water charges and electricity charges as

charged by the client/ owner and Local Authorities will be paid by the Contractor. No dispute in this regard shall be entertained.

11. 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
12. The payment of final bill will be made after successful completion and handing over of the works with complete satisfaction of Engineer In-Charge.
13. 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.
14. 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.
15. The cost/rates 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.
16. 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.
17. 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.
18. 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.**
19. 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.
20. 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.
21. 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 manpower, material, T&P, Machinery brought to the site by him.

22. 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.
23. 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. Nonstandard materials shall not be accepted.
24. The gradation of fine sand to be used in plaster work, shall be strictly as per Table 3.1 (clause 3.1.3) of CPWD Specification 2009 Vol.-I conforming to IS 1542-1977. The plastered surface shall be fairly smooth without any undulation of any kind for applying paint/white wash.
25. The material/equipment s hall conform to the quality and make as per specification 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/CPWD 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. However, such articles, which bear ISI mark but stand banned by CPWD will not be used. 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.
26. It must be ensure that all materials to be used in work bear BIS certification mark.
27. 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 CPWD 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.
28. 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.

29. In case of non-availability of material of the brands specified in the list of approved materials an equivalent brand may be used after getting written approval of WAPCOS giving details to indicate that the brand proposed to be used is equivalent to the brands mentioned in the agreement.

30. 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 and as directed by Engineer-in -Charge, 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.

31. Special Conditions for Steel: -

The contractor shall procure High tensile Steel as applicable as per the list of approved makes or any other producer as approved by WAPCOS. The steel to be used for reinforcement will be as per the approved make at site.

32. 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:

- 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.
- 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.
- 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.

33. 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.
34. 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 nighttime. The requisite supervision shall be made available by the WAPCOS along with necessary issue of material under joint custody.
35. Contractor should hand over the warranty of the specialized items to the WAPCOS.
36. 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.
37. 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. The intending bidder(s) required to quote the rate of the items as per BOQ. The rate to be quoted shall be unit rate and shall remain firm without the price variation clause. The bidders should not claim for any price variation / escalation. No price variation / cost escalation is accepted. The bid submitted with a price variation/escalation clause will be treated as non- responsive and rejected.

SECTION– V

FORMS

SECTION 5 FORMS

5.1 LETTER OF TRANSMITTAL

(On Bidder Original Letter Head)

To

The Sr. Executive Director (INFS-II),

WAPCOS Limited,

Sub: Civil works of setting up Farm for the "Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh

Ref: -

NIT No: -

Dear Sir,

- i) I/We downloaded /obtained the tender document(s) for the above mentioned Tender/Work from the website namely:

as per your advertisement.

- ii) I/We hereby certify I/We hereby certify that I/We have read the entire Terms & Conditions of the Tender Documents (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I/We shall abide hereby the terms/conditions/clauses contained therein.
- iii) The corrigendum(s) issued from time to time by your department/organization too have also been taken into consideration, while submitting this acceptance letter
- iv) I/We hereby unconditionally accept the tender condition of above-mentioned tender document(s)/corrigendum(s) in its totality/entirety
- v) In case any provisions of this tender are found violated, then your department / organization shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said Earnest Money Deposit absolutely.

Yours faithfully,

(Signature, name and
designation of the
Authorized signatory)

Date:

Place:

Name and seal of Bidder

5.2 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 in similar works	Profit/Loss (After Tax)
2018-2019		
2019-2020		
2020-2021		
2021-2022		
2022-2023		

2. Financial arrangements for carrying out the proposed work: It is hereby declared that -
----- (Name of firm with address) has enough financial resources to execute the proposed work.

Signature of Chartered Accountant (with Seal)

Signature of Bidder(s) (with Seal)

Note: Original Signature with Stamp of CA is Mandatory. Copy will not be entertained.

5.3 FORM – B STATEMENT OF SIMILAR WORKS

STATEMENT OF SIMILAR WORKS AS IN ELIGIBILITY CRITERIA EXECUTED/ COMPLETED DURING THE LAST 7 YEARS

Name of work	Allotment/ award No & date	Name& address of client who awarded (Including Tele/Fax No.	Contract value in Rs. Original/ revised (excl. GST)	Date of award of work	Date of completion original /revised	Actual date of comp	Comp. cost	Type of work	Remarks explaining reasons for delay in work completion if any
1	2	3	4	5	6	7	8	9	10

NOTE:

- 1) The Tenderer should provide information as per this Performa for the firm/company for all completed similar works as per eligibility criteria's works during last 7 years.
- 2) Certificate from client for the above information should be attached with the offer.

5.4 FORM – C 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)

5.5 FORM – D NO CONVICTION CERTIFICATE

FORM-D

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/Client/ Owner 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,

(Signature, name
and designation of
the Authorized
signatory)

Date:

Place:

Name and seal of Bidder

5.6 FORM – D (1) UNDERTAKING REGARDING BLACKLISTING / NON-DEBARMENT

Name of Work:

Ref: Tender No.....

Dated:

To

Engineer-In-Charge of Project

WAPCOS Limited

76 C, Industrial Area, Sec-18

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:

5.7 FORM – E UNDERSTANDING THE PROJECT SITE

FORM-E

FORMAT FOR UNDERSTANDING THE PROJECT SITE

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

- A. I/We hereby solemnly declare that I/We have visited the site of work and have familiarized myself/ourselves of the working conditions there in all respects and in particular, the following: -
- a). Topography of the Area.
 - b). Soil & rock conditions at the site of work.
 - c). Sources & availability of approaches for working conditions at site.
 - d). Availability of local labour, both skilled and unskilled and the prevailing labour rates.
 - g). Availability of water & electricity.
 - e). The existing roads and access to the site of work.
 - i). Availability of space for putting labour camps, Offices, stores, Explosive magazine, godown, Engineering yard etc.
 - j). Climatic condition and availability of working days
 - k). Law & Order, Security & Working conditions.
 - l). Methodology to be adopted for successful completion of work.
 - m). Working hours and shifts for completing the work as per tender conditions.
- B. I/We have kept myself/ourselves fully informed of the provisions of this tender document comprising NIT, General Information, Form of Bid, Instructions to the Tenderer & Appendices, General Conditions of the Contract, Special Conditions of Contract, and Specifications, Annexure and Statement of advertised Quantities apart from information conveyed to me/ us through various other provisions in this tender document.
- C. I/We have quoted my/ our rates for each of the items in "Schedule of Items."

I / We hereby submit our BID considering above all facts gathered during site visit and each & every aspect have been considered. Advertised Quantities taking into account all the factors given above and elsewhere in tender document.

Yours faithfully,
(Signature, name and
designation of the
Authorized signatory)

Date:

Place:

Name and seal of Bidder

5.8 FORM – F NO DEVIATION CERTIFICATE

FORM-F

FORMAT FOR NO DEVIATION CERTIFICATE

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

To
The Sr. Executive Director (INFS-II)
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

5.9 FORM – G FORMAT FOR INTEGRITY PACT

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

5.10 FORM – G INTEGRITY AGREEMENT

FORMAT FOR INTEGRITY PACT

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

BETWEEN

WAPCOS Limited, New Delhi (Hereinafter referred as the '**Principal/Owner**', 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 (Hereinafter referred to as the.....(Details of duly authorized signatory)

"Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

PREAMBLE

WHEREAS the Principal / Owner 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 Principal/Owner 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 Principal/Owner

- (1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, 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 Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner 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 Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- (2) If the Principal/Owner 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 Principal/Owner 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 Principal/Owner'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 Principal/Owner 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 participates 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 Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner 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 Principal/Owner'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 Principal/Owner 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 Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- (2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner 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 Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee of the Bidder/Contractor.

(3) Criminal Liability: If the Principal/Owner 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 Principal/Owner has substantive suspicion in this regard, the Principal/Owner 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 Principal/ Owner.
- (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 Principal/Owner 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 Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- (3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner 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 Headquarters of the Principal/Owner, 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 Owner/Principal 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 Principal/Owner)

.....

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

WITNESSES:

1.....
(signature, name and address)

2.

.....

..... (signature, name
and address)

Place:

Dated:

5.11 FORM – H FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES, DISQUALIFICATION

**FORMAT FOR LITIGATION HISTORY, LIQUIDATED DAMAGES,
DISQUALIFICATION**

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

To
The Sr. Executive Director (INFS-II)
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,

(Signature, name and designation of the
Authorized signatory)

Date:

Place:

Name and seal of Bidder

5.12 **FORM I [Rule 144 (xi) in the General Financial Rules (GFRs), 2017]**

FORM-I
UNDERTAKING

[Rule 144 (xi) in the General Financial Rules (GFRs), 2017]

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

Date:

Place:

(Signature, name and designation of the Authorized signatory)

Name and seal of Bidder

LITIGATION HISTORTY

Subject: Tenderer should provide information as per this Performa for the firm/company on any history of litigation or arbitration resulting from contracts executed in the last 5 years ending 31.03.2020 or currently in execution.

1. ARBITRATION CASES

Year	Name of work	Name and address of Client	Cause of litigation and matter in dispute	Disputed amount in Rs.	Actual Award

2. COURT CASES

Year	Name of work	Name and address of Client	Cause of litigation and matter in dispute	Name of court	If judgment given whether for or against the Tenderer

3. Information Regarding Current Litigation, Debarring / Expelling of Tenderer or Abandonment of Work by Tenderer.

- a) i) Has the Bidder consistent history of Litigation.....Yes/No
ii) If yes, give details:
- b) i) Has the Bidder been debarred/ expelled by any Agency in J&K state /India, during the last 5 years on the date of application except on account of reasons other than non- performance, Yes/No
ii) If yes, give details:
- c) i) Has the Bidder abandoned any contract work during the last 5 years...Yes/No
ii) If yes, give details:
- d) i) Has the Bidder been declared bankrupt during the last 5 years...Yes/No
ii) (If yes, give details, including present status:
- e) i) Has the Bidder been debarred by client or by any Department... Yes/No ii) If yes, give details:

Note: i) Separate sheet may be used for giving detailed information.

If any information in this schedule is found to be incorrect or concealed, pre-
Qualification of bidder will be summarily rejected.

Yours faithfully,

Date:

(Signature, name and designation of the Authorized signatory)

Place:

Name and seal of Bidder

5.13 FORM – J FORMAT OF CONTRACT AGREEMENT

This agreement made this day of BETWEEN the M/s. WAPCOS Limited (A Miniratna Public Sector Undertaking of Government of India Undertaking, under the Ministry of Water Resources), a company Registered under the Companies Act, 1956 having its registered office at Kailash, 5th Floor, 26 Kasturba Gandhi Marg, New Delhi – 110 001 and Corporate at Gurgaon, Haryana (hereinafter called “the employer” which expression shall unless excluded by or repugnant to the context, be deemed to include their successors in office) of the One Part AND (name and address of the CONTRACTOR if any individual and of all partners if a Partnership with all their addresses) (hereinafter called the “CONTRACTOR” which expression shall unless excluded by or repugnant to the context, be deemed to include his/their heirs, executors, administrators, representatives and assigns or successors in office) of the Other Part.

WHEREAS the “EMPLOYER” is desirous of

.....

and the

Contractor has offered to

AND WHEREAS the CONTRACTOR has deposited a sum of Rs as Performance Security in the form of For the due fulfillment of all the Conditions of Contract:

NOW THIS AGREEMENT WITNESSETH as follows:

1. That in this agreement words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. That the following documents shall be deemed to form and be read and construed as part of this agreement viz:

- The Contract Agreement
- The Letter of Acceptance
- The Tender submitted by the Contractor
- Instructions to Tenderer
- Conditions of Contract
- Specification for the Works
- Price Bid
- Correspondence exchanged before the issue of letter of acceptance by which the Conditions of Contract are amended, varied or modified in any way by mutual consent (to be enumerated).

3. That the Contractor hereby covenants with the Employer to complete the Contract in conformity, with the provisions of the Contract in all respects.

4. That the Employer hereby covenants to pay the Contractor, in monthly invoices submitted by him against the services rendered, as per the rates prescribed in the work order dated In consideration of such completion of the Contract, the “Contract Price” of Rs (Rupees.....) at the times and in the manner prescribed in the Contract. IN WITNESS whereof the parties hereunto have set their hands and seals the day and year first above written. Signed and Sealed by:

CONTRACTOR

Signature :

Signature: Name

: Name: Designation: Designation:

Seal :

Seal : In the presence of Witness

a) Signature:
Name & Address

Signature: Name & Address:

5.14 FORM – K FORM OF BANK GUARANTEE BOND (IN LIEU OF SECURITY DEPOSIT)

This Bank Guarantee No.

Date:

In consideration of WAPCOS Limited, a company Registered under the Companies Act, 1956 having its registered office at Kailash, 5th Floor, 26 Kasturba Gandhi Marg, New Delhi – 110 001 (herein after called the “WAPCOS”) having agreed to exempt M/s

..... having its Registered Office at

.....(herein after called the said “Contractor” from the demand under the terms and conditions of an Agreement / Contract / Work Order dated

.....made between WAPCOS and Contractor for (herein after called the said “Agreement”), of Security Deposit for the due fulfilment by the said Contractor of the terms and conditions contained in the said Agreement, on production for of a Bank Guarantee

.....
.....

..... only), we(hereinafter referred (indicate the name of the Bank) to as “the Bank” at the request of M/s..... (Contractor) do hereby undertake to pay to the WAPCOS an amount not exceeding

.....against any loss or damage caused to or suffered or would be caused to or suffered by the WAPCOS by reason of any breach of the said Contractor of any of the terms and conditions contained in the said Agreement.

2. We, (indicate the name of Bank)do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand and without reference to the Contractor from the WAPCOS stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the WAPCOS by reason of breach by the said Contractor of any of the terms or conditions contained in the said Agreement or by reason of the Contractor’s failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding(say.....only)

3. We undertake to pay to the WAPCOS any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

4. We further (indicate name of the Bank) 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 Agreement and that it shall continue to be enforceable till all the dues of the DCI under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till DCI certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor and accordingly discharge this guarantee. Unless a demand or claim in writing under this guarantee has been received by us on, we shall be discharged from all liability under this guarantee thereafter.

5. We, further agree (indicate name of the Bank) that the DCI shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the DCI against the said Contractor and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or for any forbearance, act or omission on the part of the DCI or any indulgence by the DCI to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

7. We, lastly undertake not to (indicate name of the Bank) revoke this guarantee during its currency except with the previous consent of the DCI in writing.

8. This guarantee will remain in force until All claims under this guarantee must be made in writing and dispatched to us by Registered Post, Hand Delivery or by Courier against acknowledgment. Notwithstanding what is stated above, our liability under this guarantee will be limited to (..... Only).

Dated theday of2022.

SECTION– VI

ANNEXURES

6.1 Annexure – I GUARANTEE BONDS**GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION**

The agreement made this _____ day of _____ two thousand and between _____ S/o _____ (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 etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, after the expiry of maintenance period prescribed in the contract for the minimum life of ten years, to be reckoned from the date after the expiry of maintenance 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 WITNESS WHEREOF those presents have been executed by the obligator and by for and on behalf of the WAPCOS LIMITED on the day, month and year first above written.

Signed sealed and delivered by OBLIGATOR in presence of:

1. _____
2. _____

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

1. _____
2. _____

6.2 Annexure – II PERFORMANCE SECURITY

FORM OF PERFORMANCE GUARANTEE **(To be submitted on Stamp paper)**

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

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 in to 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) (5 % 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.

6.3 Annexure – III ADVANCE PAYMENT BANK GUARANTEE

FORM OF BANK GUARANTEE BOND (IN LIEU OF SECURITY DEPOSIT)

Bank Guarantee No.

(To be submitted on Stamp paper)

Date:

1. In consideration of WAPCOS Limited, a company Registered under the Companies Act, 1956 having its registered office at Kailash, 5th Floor, 26 Kasturba Gandhi Marg, New Delhi – 110 001 (herein after called the “WAPCOS”) having agreed to exempt M/s..... having its Registered Office at (herein after called the said “Contractor” from the demand under the terms and conditions of an Agreement / Contract / Work Order dated made between WAPCOS and Contractor for (herein after called the said “Agreement”), of Security Deposit for the due fulfilment by the said Contractor of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for only), we (hereinafter referred (indicate the name of the Bank) to as “the Bank” at the request of M/s..... (Contractor) do hereby undertake to pay to the WAPCOS an amount not exceeding.....against any loss or damage caused to or suffered or would be caused to or suffered by the WAPCOS by reason of any breach of the said Contractor of any of the terms and conditions contained in the said Agreement.
2. We, (indicate the name of Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand and without reference to the Contractor from the WAPCOS stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the WAPCOS by reason of breach by the said Contractor of any of the terms or conditions contained in the said Agreement or by reason of the Contractor’s failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding (say..... only)
3. We undertake to pay to the WAPCOS any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.
4. We further (indicate name of the Bank) 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 Agreement and that it shall continue to be enforceable till all the dues of the WAPCOS under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till WAPCOS certifies that the terms and conditions of the said Agreement have been fully

and properly carried out by the said Contractor and accordingly discharge this guarantee. Unless a demand or claim in writing under this guarantee has been received by us on

....., we shall be discharged from all liability under this guarantee thereafter.

5. We, ... further agree (indicate name of the Bank) that the WAPCOS shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the WAPCOS against the said Contractor and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or for any forbearance, act or omission on the part of the WAPCOS or any indulgence by the WAPCOS to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
7. We, lastly undertake not to (indicate name of the Bank) revoke this guarantee during its currency except with the previous consent of the WAPCOS in writing.
8. This guarantee will remain in force until All claims under this guarantee must be made in writing and dispatched to us by Registered Post, Hand Delivery or by Courier against acknowledgment. Notwithstanding what is stated above, our liability under this guarantee will be limited to (..... Only).

Dated the day of2020

6.4 Annexure – IV SAFETY CODES

SAFETY CODE

1.0 INTRODUCTION

- 1.1 The purpose of the present document is to outline the minimum safety requirements applicable to personnel, equipment and facilities during erection, pre-commissioning and commissioning activities of OWNER / CONSULTANT Construction Sites. Constructing safe structure and providing safe working environment to the personnel is a vital factor in successful construction business. Safety and health are as much as part of effective project planning and control as the cost, schedules, procurement and quality. Indeed they are all closely interrelated. Productivity, safety and quality can move forward in close proximity.

1.2 OBJECTIVES

OWNER/CONSULTANT Site Management has following main objectives regarding safety at site.

- a) No Accident
- b) To make the environment safe
- c) No harm to people
- d) Safety is everyone's responsibility
- e) To make the job safe

2.0 GENERAL

- 2.1 These rules do not exempt the Contractor from statutory Health, Safety and Environmental duties but are intended to assist in attaining a high standard of compliance with those duties, in order to provide a safe and healthy working environment.
- 2.2 OWNER/CONSULTANT will assist Contractors in any practical way to facilitate safe working, and requires full co-operation in observing these rules.
- 2.3 The rules for Health and Safety specified herein are in no way intended to relieve the Contractor from any obligation or liability under the Contract, nor is it intended to relieve the Contractor of any of his legal obligations for the avoidance of accidents.
- 2.4 In all matters arising in the performance of the Contract, the Contractor shall conform with all Statutory Regulations and By-Laws made with statutory authority by Government Departments or by Local or other Authorities that shall be applicable to the Works.
- 2.5 The Contractor, in the performance of the Contract, shall not endanger the safety or unlawfully interfere with the convenience of the public in any manner.
- 2.6 The Contractor's representative on Site shall communicate details of these rules for Health, Safety and Environment to all Contractors' employees and to all Subcontractors and Subcontractors' employees employed on the Site.

2.7 The requirements of the Client/Owner's existing Site Rules/Regulations form part of the Contract and in the case of conflict between the OWNER/CONSULTANT'S rules, the highest standard shall be applied.

2.8 At the tender stage OWNER/CONSULTANT will require to see a copy of the Contractor's policy, organization and arrangements for the Health and Safety at Work. The Contractor shall submit complete documents Health and Safety Questionnaire. Contractor shall deploy safety officer of adequate experience at each work site or during each shift including Sunday/holiday with approval of EIC/Owner.

3.0 SITE HEALTH, SAFETY AND ENVIRONMENT INDUCTION

3.1 All personnel shall receive OWNER/CONSULTANT and Contractors' site Health, Safety and Environment induction before they commence work on site. The induction shall comprise information on the various hazards which they may come into contact with, instructions on the site emergency procedures, warning and alarm systems, and permit to work system, first aid locations, welfare facilities, access routes and project specific rules.

3.2 It is the responsibility of the Contractor to familiarize all new personnel to the Project on the actual location of muster points, fire alarm points, first aid stations and the like.

4.0 DEMARCATION

4.1 Construction personnel are restricted to the construction areas shown on the Contract Drawings. Any personnel found on/in or interfering with the existing works/plant, without permission, will be dismissed from site. Any work outside of these areas may only be carried out with the written agreement of OWNER/CONSULTANT.

Before any work is started on the site, the Contractor's representative shall report to OWNER/CONSULTANT, who will confirm to the Contractor's representative, the limits of the working area(s) and shall be informed of any special requirements appertaining thereto.

5.0 ACCESS TO THE CLIENT'S FACILITIES/BUILDINGS

5.1 The Client's Facilities, including the canteen/cafeteria and toilets shall not be used by Construction Personnel.

5.2 Construction Personnel shall not enter any of the Owner's building unless escorted by a member of the OWNER/CONSULTANT'S staff (or working with prior agreement to Owner's Permit to Work System).

6.0 BEHAVIOR ON SITE

6.1 All Contractors' personnel shall treat everyone with respect and will refrain from any sexually suggestive or abusive comments or behavior.

7.0 SMOKING, EATING AND DRINKING

7.1 Smoking, eating and drinking is allowed in designated areas.

8.0 DRUGS AND ALCOHOL

8.1 The possession or use of illicit drugs and alcohol on site is not permitted. Anyone who is found, or suspected to be, under the influence of either will be removed from site (subject to the Contractors' disciplinary procedure).

8.2 Anyone taking prescriptive drugs shall advise their employer, in particular those drugs that may impair their performance. Their employer may make arrangements to assign them to more suitable work, but shall ensure that the OWNER/CONSULTANT Construction manager is informed without delay.

9.0 PERMIT TO WORK SYSTEM

9.1 All construction works will be carried out under a permit to work system. It is designed to protect personnel and plant and consists of an organized and predefined safety procedure. It forms a clear record of all foreseeable hazards which have been considered in advance of construction operations.

9.2 The identities of the permit "Issuing Authority" will be OWNER and the "Permit Acceptor" will be the Contractor.

9.3 The following types of permits will be issued:

- Clearance Certificate - all other permits are invalid without this Certificate, (this certificate can be used for general work).
- Electrical Work Permit.
- Confined Spaces Work Permit.
- Excavations Work Permit.
- Working at Height work Permit.
- Road Closure Work Permit.

9.4 Written requests for permits must be submitted to Owner at least twenty-four hours in advance and the permits will be issued daily. Permits shall be given to Safety Officers of the contractor, by representatives authorized by Owner in approved formats.

10.0 ACCESS, SITE PASSES AND SECURITY

10.1 Passes

All personnel and vehicles shall enter and leave the site via the entrance authorized for construction personnel and traffic. Contractors' employees shall not enter any part of the site other than for the purpose of carrying out the Works.

All personnel shall be issued with a site pass. The site pass must be carried (or displayed on the pass holder's lapel) at all times. Details of all personnel requiring site passes shall be submitted to OWNER/CONSULTANT at least seven working days in advance of the planned start-on-site date. Site passes shall be submitted for inspection on entering or leaving the site, or when requested for inspection by OWNER/CONSULTANT or Security.

Loss of site passes must be reported immediately to Owner/Consultant. Lack of a site pass may mean delay at the site entrance. Owner/Consultant shall not accept any responsibility for lost time or costs incurred.

On completion of their assignment, or termination of their employment, all personnel will return their site pass to Owner or Owner representative/ Owner authorized personal.

10.2 Security

The security of Contractor's plant, tools, equipment, materials (including free issue materials properly handed-over by Owner/Consultant) are the responsibility of the Contractor. It is the Contractor's responsibility to satisfy themselves that the security arrangements in existence on the site are adequate. The Contractor shall provide any other security measure that he deems necessary for the control and security of Contractor owned equipment and plant, including for free-issue plant and materials, both within the site establishment area and the working areas on the site.

Owner accepts no liability for any loss, damage or deterioration to the Contractor's plant tools equipment and materials.

Owner reserves the right to search at random all personnel, any Contractor's employee, or employees of its servants, agents, Contractors or any vehicle entering or leaving the site. Any package or container being taken into or out of the site may be opened and inspected by security staff or any other persons authorized by Owner/Consultant to make such a search or inspection.

It is the Contractor's obligation and responsibility to ensure that OWNER / CONSULTANT right to search and inspect persons and property, extends to and is brought to the attention of all his personnel.

Personnel shall give all possible assistance and make available any facilities required to assist OWNER/CONSULTANT and the Police in pursuance of the prosecution of any person(s) responsible for alleged malicious damage or loss to the Works or existing installations.

Owner shall not accept any responsibility for the loss or damage of personal effects. The security and safekeeping of personal effects is the responsibility of each individual.

- 10.3 Construction personnel will not be admitted to the Construction Areas unless they have undergone Owner/ Consultant's induction, and received a security pass.

No Induction, No Pass, No Access to the Site

- 10.4 OWNER/CONSULTANT reserves the right to deny access to the Construction Site/Areas and/or the Construction Car parks to any person, or vehicle.

- 10.5 Individuals may be excluded from and refused future entry to the Site and/or Construction Areas for any breach of Safety or Security Rules, or exceeding the speed limit (20 mph on roads leading to the site off the public highway and 5 mph in the construction area).
- 10.6 No plant/skips waste or materials may leave the Construction Area without the clearance of OWNER/CONSULTANT.
- 10.7 The taking of photographs on the site is prohibited.
- 10.8 Vehicles with children under the age of 16 years or animals onboard will not be allowed access.
- 10.9 Visitors will only be allowed by appointment (two days' notice to OWNER/CONSULTANT is required). Visitors shall be accompanied by a member of the Contractor's team (who has received Health, Safety and Environment Induction) at all times. The visitor will have to obtain a visitor's pass, and be collected from and returned to the main gate.
- 10.10 Each Contractor will keep a daily register of who is on site. The register will record name, pass number, time-in and time-out (records on time-clocks will not be permitted). This information shall be used to check personnel (role call) in the event of an emergency

11.0 PARKING, DELIVERIES AND VEHICLE PASSES

- 11.1 Contractors' personnel shall not be allowed to park any vehicle on the main car park or site. All contractors shall park in the Contractors' Temporary Car Park.
- 11.2 The Contractor shall arrange transport between the parking area(s), the main site gate and the Contractor's establishment and working areas if judged to be necessary.
- 11.3 Vehicles used solely for transporting of tools and equipment may be allowed access to the working area(s) for unloading/loading only.
- 11.4 Owners of vehicles parked illegally will have their car pass taken off them and told to remove the vehicle from site. They may have their site pass withdrawn and be refused further access to the Construction Site.
- 11.5 The Construction Areas will be restricted to construction plant and delivery vehicles.
- 11.6 The speed limit on site is 10 mph on the approach roads leading to the site off the public highway and 5 mph on the construction areas

12.0 SITE SUPERVISION

- 12.1 The Contractor must ensure that an employee of suitable seniority and authority, with responsibility for Health and Safety, is always present on site during the course of the works, to supervise and direct the Works and to receive and

implement instructions from OWNER/CONSULTANT. Seven days before commencing works on site, the Contractor must notify OWNER/CONSULTANT of the name of that employee.

- 12.2 All supervisory staff shall be made aware of their responsibilities for safety.

13.0 TRAINING, COMPETENCE OF EMPLOYEES AND NOTIFICATION OF HAZARDS

- 13.1 Each Contractor must ensure that all his supervision and employees have had adequate safety training and are experienced to carry out their work safely, prior to starting on site. Training should be continuous throughout a project and should include regular toolbox discussions, (on site briefings at the start of each working day/shift).

To this end, the Contractor must also ensure that specific hazards likely to be experienced on the Site, whether notified to them or discovered by them, are notified to their workforce together with any precautions to be taken and local rules to be observed. Similarly, such hazards should be notified to their Subcontractors and, where discovered by them, to OWNER/CONSULTANT.

- 13.2 Where particularly severe or unusual hazards may arise on site, OWNER/CONSULTANT reserves the right at no additional cost to request Contractors' employees to attend special safety training and instruction sessions, whether carried out on site or externally. OWNER/CONSULTANT also requires Contractors' employees to undergo specified induction safety training. These aspects should be checked prior to submission of Tenders or execution of the works.

14.0 METHOD STATEMENTS

- 14.1 Contractors shall submit Safety Method Statements

- Excavation works.
- Lifting operations, as specified.
- Entry into confined spaces.
- Working at height.
- Installation of pre-cast concrete planks.
- Pre-cast concrete structure.

Safety method statements must also be submitted for activities which have been identified as being of significant risk during the risk assessment process and activities selected by OWNER/CONSULTANT.

- 14.2 All Safety method statements must be submitted to OWNER/CONSULTANT at least seven days before planned commencement of the works.

- 14.3 The Safety method statement shall detail:

- The job to be undertaken.
- The individual activities required to complete the job.
- The individual trades/disciplines involved in each activity.
- Plant, equipment and tools be used in each activity.
- The Name(s) of the Supervisor(s) for each activity.

- The Name of the person in overall charge of the job.
- A detailed description of how the work will be done including control measures and procedures to complete each activity and the overall job safety.

14.4 Compliance with the contents of the safety method statement shall be monitored on a daily basis and addressed during Contractors' safety management meetings.

14.5 The Contractor must ensure that employees executing the works are fully briefed and are made aware of the details within the approved Safety Method Statements, prior to starting the task, this includes highlighting hazards associated, associated risk assessments and reduction measures.

15.0 RISK ASSESSMENTS

15.1 Contractors will be required to produce risk assessments for all works under their control.

The risk assessment shall be submitted as part of the Safety Method Statement to OWNER/CONSULTANT at least seven days before the job commences, and include the following information:

- Identification of all hazards applicable to significant risk activities.
- Details of measures in place to control the risk.
- Justification that the existing control measures are adequate or if not, a detailed action plan on how the risk(s) shall be controlled.

15.2 The use of Generic Risk Assessments is only acceptable if they follow the logical progression of the method statement and that specific operation, otherwise, task specific risk assessments will be required.

15.3 All risk assessments must be communicated to the workforce who will be responsible for undertaking the work.

16.0 COMPLIANCE WITH STATUTORY REGULATIONS

16.1 Contractors shall carry out their work in accordance with statutory legislation.

It is the duty of the Contractor to have knowledge of all relevant legislation and take account of it in the planning and execution of the work on OWNER/CONSULTANT' Sites.

17.0 INFORMATION TO BE PROVIDED AND POSTED

17.1 Contractors shall have in place, and issue to OWNER/CONSULTANT the following documents or information prior to commencement of their work, (where detailed within these rules):

17.1.1 Safety, Health and Environmental Policy.

17.1.2 Employer's Liability Insurance Certificate.

- 17.1.3 A detailed Health, Safety and Environment Plan, compliant with the project plan developed by the Planning Supervisor and/or Principal Contractor.
- 17.1.4 Work Method Statement Lifting Studies.
- 17.1.5 COSHH Procedures and Assessments.
- 17.1.6 Noise Procedures and Assessments.
- 17.1.7 Name of the individual appointed as the Site Safety Supervisor/Advisor.
- 17.1.8 Test certificates and examination for lifting gear, plant and appliances to be used on site. (Duplicates to be provided for OWNER/CONSULTANT's records.)
- 17.1.9 Drawings and calculations relating to false work, designed scaffolds, ground works and supporting temporary works.
- 17.1.10 Details of young persons to be employed on site.
- 17.1.11 Information relating to hazards associated with plant, operation and materials used in the works.
- 17.1.12 Proof of training for all personnel engaged in the works.
- 17.1.13 Daily Labour Returns.

17.1.14 Monthly Return of Accident Statistics to submitted OWNER/CONSULTANT Format (Nil returns required).

17.1.15 Personal Injury Report to submitted to OWNER/CONSULTANT format (all injuries, however minor to be reported). OWNER/CONSULTANT may request a detailed investigation into an accident. OWNER/CONSULTANT's decision on which incidents require detailed investigation is final.

17.1.16 Dangerous Occurrences, Incidents, Damage to Equipment and/or Property report to be submitted to OWNER/CONSULTANT format.

17.1.17 All entries/records of accidents entered into the Contractor's Accident Book shall also be copied into OWNER/CONSULTANT's Accident Book by the Contractor.

17.1.18 Copies of all Statutory Registers to be submitted weekly to OWNER/CONSULTANT.

17.1.19 Copies of the Contractor's Safety Officer/Advisor's reports of their findings on site visits/inspections.

17.2 Accidents, Incidents, Dangerous Occurrences and Notifiable Diseases

17.2.1 Accidents/Incidents/ Dangerous Occurrences/Near Misses

All accidents/incidents/dangerous occurrences/near misses must be notified to OWNER/CONSULTANT immediately, and a report prepared.

For reportable incidents, a copy the report to the Authority must be submitted to OWNER/CONSULTANT on completion but no later than two calendar days after the accident.

17.2.2 OWNER/CONSULTANT reserves the right to decide which accident, incidents or minor injuries shall be investigated, and to what extent/format/contents of any investigation.

Note: All such notification or reports to OWNER/CONSULTANT do not release the Contractor of his statutory duties to report such matters to the Authorities by the quickest possible means (viz, telephone, fax and e-mail) immediately following the incident/accident.

18.0 PERSONAL PROTECTIVE EQUIPMENT/CLOTHING

18.1 All personnel on OWNER/CONSULTANT' site must wear as a minimum safety helmet, hi- vis vest, safety glasses and protective footwear. Additional personal protective equipment may be required dependent on the tasks being undertaken or as dictated by the risk assessment.

18.2 Contractors shall provide all necessary personal protective clothing and equipment for their employees and renew as necessary. Records of the issue of such equipment must be maintained for inspection by OWNER/CONSULTANT.

18.3 The Contractor shall:

- Provide personal protective equipment which is comfortable and fit for purpose.
- Maintain and clean personal protective equipment.
- Replace free of charge defective, broken or lost personal protective equipment.
- Provide storage for personal protective equipment when not being used.
- Ensure that personal protective equipment is properly used.
- Give training, information and instruction on its use to employees.
- Ensure that all personnel wear suitable clothing at all times (**no shorts, no sports shirts and no colours that may invite aggression - HSE "Keep Your Tops On" is enforced**).
- OWNER/CONSULTANT reserves the right to direct the contractor to change/replace personal protective equipment if they determine that it is unsuitable or inadequate for its proposed use.

19.0 SUBSTANCES (Control of Substances Hazardous to Health – COSHH)

19.1 Substances hazardous to health must be identified prior to taking them onto site and, if they cannot be substituted or eliminated, assessments stating how the substances will be controlled and what precautions will be introduced must be carried out and recorded in writing by a competent person. This assessment must be communicated to, and understood by, the members of the workforce who are likely to come into contact with the substance(s). A copy of all assessments should be submitted to OWNER/CONSULTANT.

19.2 Hazardous substances may only be brought to site with OWNER/CONSULTANT' permission. They shall be kept to a minimum and must be stored in secure, appropriate containers with the contents clearly labelled. The containers must be stored in a secure area, preferably quarantined from the main

stores areas, with suitable warning notices and signage posted.

19.3 Hazardous materials must not be allowed to discharge into natural watercourses or drainage systems.

- 19.4 All hazardous material waste must be kept separate from normal waste and be disposed of in a specialist disposal facility.

20.0 NOISE

- 20.1 When any operation of a Contractor is likely to expose any employee on site to an average noise level of 85 dB(A) and above, an assessment shall be carried out, by the Contractor, and records maintained for OWNER/CONSULTANT' inspection. In such circumstances, the Contractor must keep stocks of adequate ear defenders or other suitable hearing protection.
- 20.2 In addition to the foregoing, noise must be kept to a minimum at all times and must not exceed acceptable and/or locally specified rules and conditions relating to noise imposed by the Contract. Due regard must always be given to noise levels, and their effects on the local community and persons not involved in the operations. Permissible times for noisy work operations, and other restrictions, may be imposed by the Local Authority. Contractors receiving Notices or Prohibition Notices under the related legislation must notify OWNER/CONSULTANT of such Notices.

21.0 FIRST AID

- 21.1 All Contractors shall provide or ensure that they are provided with, such equipment and facilities as are adequate and appropriate in the circumstances for enabling first-aid to be rendered to any of their employees if they are injured or become ill at work.
- 21.2 No work shall commence on site until Contractors have trained first aid personnel on site.
Contractor at all times during execution, shall station at site an emergency vehicle without any extra cost or claim.

22.0 TOOL BOX TALKS

- 22.1 Tool Box Talks will be implemented by all Contractors. The agenda for these talks will be agreed with OWNER/CONSULTANT prior to the commencing of work.

23.0 HEALTH, SAFETY AND ENVIRONMENT INSPECTIONS/HEALTH, SAFETY AND ENVIRONMENT ADVISORS

- 23.1 The OWNER/CONSULTANT' Health, Safety and Environment Engineer/Advisor will visit the sites and carry out Site Safety Inspections. Contractors must co-operate in these inspections. Whenever Contractors' own Health, Safety and Environment Advisors visit site they must report their arrival and departure to the OWNER/CONSULTANT' Senior Representative, and provide a report of their findings and any necessary corrective action to be undertaken.
- 23.2 Contractors on the project must provide a full-time site based Health, Safety and Environment Advisor, when the intensity of the work requires or at the request of the OWNER/CONSULTANT.

23.3 Contractors who do not have full-time sitebased Health, Safety and Environment Advisors, shall ensure that their Health, Safety and Environment Advisor visits site once per week as a minimum.

23.4 Appointment of Health, Safety and Environment Supervision

The Contractor shall appoint safety supervision. The name of each appointee, together with evidence of his or her competence to carry out the requirements of the role, shall be submitted to OWNER/CONSULTANT for their approval.

24.0 HEALTH, SAFETY AND ENVIRONMENT MEETINGS

24.1 Health, Safety and Environment will form part of the agenda at all Site Progress Meetings.

The Contractor's Safety Advisor may be asked to attend these progress meetings.

24.2 Once per month OWNER/CONSULTANT' Resident Construction Manager shall convene a Health Safety and Environment Meeting of all Contractors. Attendees at the meeting shall be all Contractors' Safety Advisors and Site Managers.

25.0 HEALTH, SAFETY AND ENVIRONMENT COMMITTEES AND SAFETY REPRESENTATIVES

25.1 OWNER/CONSULTANT encourages the workforce to nominate Safety Representatives as a way of improving communication on Health, Safety and Environment issues. Wherever Contractors' Safety Representatives have been appointed, OWNER/CONSULTANT must be informed of their appointment in writing.

26.0 HOUSEKEEPING

26.1 Contractors are expected to carry out their work in a clean, safe and orderly manner.

26.2 Dust shall be kept to acceptable levels for the work being carried out. Waste materials and rubbish shall be cleared up as the work progresses and not left to introduce a safety hazard for other personnel engaged on the works.

26.3 Construction waste should never obstruct emergency exit routes, Firefighting equipment, emergency alarm call points or other emergency facilities.

26.4 From time to time as judged necessary, at the expiration of the contract, or when instructed to do so by OWNER/CONSULTANT, the Contractor shall undertake to clean and tidy his areas of occupation and work to the satisfaction of OWNER/CONSULTANT. Should the Contractor fail to do this, OWNER/CONSULTANT reserves the right to remove all offending materials and debris and to deduct the cost of this operation from the Contract Price. OWNER/CONSULTANT accepts no responsibility for any materials and/or tools which may be removed during this operation.

26.5 The Contractor must ensure that the following requirements are strictly enforced:

- Ample provision of refuse bins for all rubbish including organic waste such as food scraps, etc.
- Daily clearance of all such bins to the area designated for this discharge.
- No discharge of deleterious matter such as oils or other industrial waste.

26.6 All site offices, toilets, eating facilities, changing rooms, drying areas, stores, etc, which are the responsibility of the Contractor, shall be cleaned daily as a minimum by the Contractor. These facilities shall be checked for vermin on a two weekly Rota.

27.0 FIRE PREVENTION

27.1 Before welding, flame or arc cutting of metals, or other processes involving heat or naked lights are permitted, a fire risk assessment shall be carried out by the contractor and arrangements agreed with OWNER/CONSULTANT who will issue a Permit to Work.

27.2 Contractors shall familiarize both themselves and their employees with the fire safety arrangements, fire alarms, means of escape and emergency evacuation procedures.

27.3 Before leaving the premises and site, contractors shall ensure that naked lights and other ignition sources have been extinguished and electrical apparatus, where practicable, switched off and/or disconnected.

27.4 Contractors shall store Highly Flammable Liquids and Liquefied Petroleum Gases in a manner approved by OWNER/CONSULTANT.

27.5 OWNER/CONSULTANT' fire protection equipment shall only be used in an Emergency. Fire extinguishers/fire blankets for use when carrying out hot work shall be provided by the Contractor.'

28.0 REMOVAL OF WASTE FROM CONSTRUCTION SITES

28.1 The removal of waste shall only be undertaken by Licensed Waste Carriers.

28.2 Where there is any doubt of the composition of excavation spoil, it must be analyzed before it is removed from site.

28.3 Evidence of compliance shall be submitted to OWNER/CONSULTANT prior to the removal of any waste from site.

28.4 Controlled waste is any kind of household, industrial or commercial waste. This includes, for example:

- Scrap metal.
- Building, construction, demolition and excavation waste, including waste from any repair or renovation.

- Clinical waste.
- Anything which is unwanted because it is surplus, broken, worn out, contaminated or spoiled in some other way.

Controlled waste disposal must be managed via a chain of transfer notes, maintained by the contractor and readily retrievable for OWNER/CONSULTANT' inspection.

29.0 EXCAVATIONS AND OPENINGS

- 29.1 No excavation work shall be commenced by the Contractor unless a valid excavation permit has been issued. The Contractor shall have on site at all times while excavation work is being carried out, detection equipment which meets the latest technology.
- 29.2 Prior to the start of any excavation, OWNER/CONSULTANT shall be consulted and the presence of overhead and buried service records shall be checked. Where "live" services are present, hand excavation must be carried out until the location of the service has been identified, recorded and made safe.
- 29.3 The Contractor must erect suitable solid edge protection (i.e., double handrails) around excavations or openings. During the hours of darkness any excavations, openings or obstructions near or on roadways and walkways must be indicated by a sufficient number of warning lamps.
- 29.4 The sides of all excavations should be properly shored, battered or stepped to prevent collapse. No excavation work shall commence unless there are adequate resources present to ensure the stability of the excavation. Excavations shall be inspected prior to, or re-commencement of the work to ensure the excavation is still in a safe condition.
- 29.5 All excavations shall have a proper ladder access point provided.
- 29.6 Spoil from excavations must be piled at least 1m from the edge of the hole.
- 29.7 Vehicular traffic shall be restricted from the edges of excavations, to prevent possible collapse.

30.0 ELECTRICITY

- 30.1 All Contractors must provide their own electrical power supplies or as per Technical ITB.
- 30.2 Contractors must not interfere with or work on any of, the Client's electrical installations or equipment without written consent.
- 30.3 Where Contractors have to work in the vicinity of electrical equipment, they must carry out a risk assessment prior to commencement of any works.
- ALL EQUIPMENT MUST BE TREATED AS "LIVE" UNLESS ISOLATED/LOCKED OFF AND TAGGED.**

30.4 Repair or installation of any electrical equipment must only be carried out by a competent qualified electrician.

30.5 The electrical supply to powered hand tools must not exceed permissible volts, centre tapped giving appropriate volts to earth. Where this is not possible, due to the type of tool being used, the approval of OWNER/CONSULTANT must be sought in writing.

Electrical lighting for use in confined spaces must not exceed 24 volts (and be explosion proof where applicable). Powered hand tools used in confined spaces should, where possible, be air operated.

30.6 Contractors requiring to install temporary electrical supply equipment shall submit a temporary electrical supply procedure to OWNER/CONSULTANT for approval. The procedure shall, where necessary, cover installation of 380/440 volt system, installation of

110volt system, lighting system, welding equipment installation, inspection testing operation and maintenance of temporary electrical systems.

30.6.1 **Distribution Boards** - Semi-permanent or Long Term

These should be accommodated in weatherproofed locations and be so arranged, if possible, that they will not need to be moved during the Contract. They should be proofed against interference or unauthorized operation and they should be large enough to accommodate all the necessary apparatus required. Each circuit should be clearly labeled and a circuit diagram should be located at each board.

30.6.2 **Distribution Boards** – Temporary

These are usually small portable panels or boards containing two or three socket outlets. They must be of robust construction, preferably all-insulated and should be supplied by heavy duty flexible cables, these cables shall not be spliced. Socket outlets, plug connectors and cable couplers should comply with High Standards or equivalent industry standard.

30.6.3 **Distribution Cables**

These cables run from the main distribution boards to the local distribution boards throughout the site.

The cables will normally be multi-strand multi-core armored PVC cables but, in certain cases, may take the form of Mineral Insulated Copper Clad (MICC) cables. The latter type should be sheathed with PVC.

The installation must be so arranged as to prevent the need for long trailing cables. Socket outlets should be located as near the working point as possible.

Power and lighting circuits should be kept separate.

A full record should be made of all parts of the installation and should be kept up to date when alterations or extensions are made.

30.6.4 Underground Cables

Cables may be provided by the Contractor and laid underground or overhead to connect the supply or metering point to the semi-permanent site distribution boards.

The cables must be suitable for the duty and loading expected, e.g., armored PVC cables. The cables should be buried at a safe depth or taken from a height so as not to obstruct the movement of persons and vehicles and their routes clearly marked both on the site and on the site plans.

The cables should be properly terminated and be provided with efficient circuit protection. Cable routes should be so arranged that the minimum of obstruction is caused. The cable should be treated with care and given the same supervision and protection as other cables.

- 30.7 No temporary electrical supply shall be installed or modified without the agreement and approval of OWNER/CONSULTANT.
- 30.8 Any tool, plant or equipment exceeding 110 volts (55v to earth) shall be connected to an earth leakage circuit breaker (ELCB).

31.0 WORK IN CONFINED SPACES

- 31.1 All work in confined spaces must be covered by a safety method statement.

Safety method statements for work in confined spaces should include arrangements for the following as a minimum:

- Issue of a permit to work
- Work scope and method.
- Nominated Supervisor.
- Tally man.
- Rescue procedures and equipment.
- Training.
- Tools and equipment to be used, including low voltage or pneumatic.
- Lighting requirements, including standby/emergency.
- Explosion proof fittings.
- Low voltage or pneumatic tools.
- Ventilation.
- Access.
- Bonding to prevent both electrical shock and static discharge.
- Work cycles, to reduce risk of heat exhaustion.
- Fire safety and extinguisher requirements.

- 31.2 Contractors shall not enter or commence work in any excavation, tank, vessel, pipe or chamber or other enclosed space, until a valid permit to work has been issued. Where Contractor's operations result in a dangerous atmosphere arising during the monitoring of the work activity, the permit to work issuing authority must be informed and all personnel removed from the area.

No new activity shall be introduced into a confined space without the permission and signed approval of the permit to work issuing authority.

Whilst work is ongoing within a confined space, the Contractor will be required to provide a trained standby/tally man.

- 31.4 All personnel who have to enter confined spaces must have undertaken the training appropriate to this task.

32.0 MOBILE CRANES

- 32.1 All cranes (including piling rigs, fork lift trucks, mobile elevated work platforms, hand lorries and similar equipment), whether owned by the Contractor or hired, must carry relevant test certificates and thorough examination reports, together with the manufacturer's handbook. Copies of this documentation must be submitted to Owner/Consultant prior to commencing work.
- 32.2 Only persons who are certificated as competent and authorized shall be allowed to operate cranes. The Contractor must be able to prove the competence of their employees to operate such equipment prior to its use.
- 32.3 Crane operators or other competent persons must carry out daily inspections and enter these in the crane register. Failure to maintain the register properly may lead to suspension of operations. This obligation is the responsibility of the crane hirer when he is supplying the crane and the operator. In addition, the Contractor will implement a regular inspection and maintenance programme to ensure that all components of the lifting device are in good condition.
- 32.4 Travel routes for cranes and crane standing must be agreed with OWNER/CONSULTANT in order to avoid such things as overhead lines and other structures, underground services, excavations, made up ground, etc. Load spreader pads of sufficient size and thickness area, and of suitable material, e.g., metal plates, timber, etc, are to be placed under each outrigger foot, before all crane lifting operations are allowed to commence.
- 32.5 Crane duty charts (Load Radius Tables) must be displayed on or be available in the crane for easy reference. In addition, crane manufacturers' rigging/de-rigging instructions must be available on site. During rigging/de-rigging of jibs/booms, provision must be made to support sections/either side of rigging points, from below, utilizing tightly packed blocks.
- 32.6 All cranes shall be fitted with:
- A reverse warning audible alarm.
 - Load radius indicator.
 - Automatic safe load indication.
 - Crane hooks with safety catches. All of which must be serviceable.

- 32.7 All lifting equipment accompanying the crane shall comply with the requirements of lifting regulations.
- 32.8 The assembly, rigging and de-rigging of any crane components, including fly jibs, shall only be done under the supervision of a competent lifting supervisor. An approved risk assessment, together with the manufacturers' rigging/de-rigging instructions must be in place covering rigging activities for the equipment.
- 32.9 Every Contractor involved in lifting operations with a crane (including a piling rig) or mobile crane shall appoint, in writing, a lifting supervisor to oversee all lifting operations.
- 32.10 No crane shall travel with a suspended load.
- 32.11 Outriggers, when installed, must always be used.

33.0 LIFTING OPERATIONS

- 33.1 A Lifting Study and Safety Method Statement must be prepared for all heavy lifts exceeding 10 tons, or of a complex nature, e.g., tandem lifts or as specified by the Construction Manager (or the Rigging and Lifting Supervisor) and submitted to OWNER/CONSULTANT for review.
- 33.2 Every lifting operation must be properly planned by a nominated, competent person.
- 33.3 Every lifting operation shall be appropriately supervised.
- 33.4 All slinging and rigging of loads must be carried out by competent personnel.
- 33.5 Clear communications between the crane operator and the person responsible for controlling the lift must be established.

All statutory Inspection Reports/Certification/Documentation and proof of the driver's training shall be photocopied and handed to OWNER/CONSULTANT prior to the setting up of the crane. Certification for lifting equipment to be used in the lift shall be identified and cross checked with the item of plant

34.0 STEEL ERECTION

- 34.1 The weight of each component in excess of 500 kg shall be clearly marked upon it.
- 34.2 Erectors must be fully informed of the correct erection sequence, by their supervisor, prior to each stage of work commencing.
- 34.3 Vertical access provision should, whenever possible, be fixed to the steel before it is lifted into position. Where this is not possible permanent access, ie, stairways or permanent metal ladders, shall be installed as early as possible.
- 34.4 Where horizontal access along structural members is required, as much work as possible must be completed before the steel is lifted into position. This includes:

Fixing of handrails or posts for securing steel wire ropes to be used in conjunction with safety harnesses or inertia reels.

The fixing of scaffold tubes (needles) to the lower flange of an I-beam to allow a working platform to be erected.

Where scaffold tubes (needles) are used they shall not support a working platform wider than three boards, or one lightweight staging without being “picked up”.

Where no ladder access, permanent stairway, etc, leads onto working platforms, as described above, employees must use man riding baskets or mobile elevated work platforms as far as reasonably practicable to access working areas.

35.0 SCAFFOLDING

- 35.1 All scaffolding must be of good quality, be erected in compliance Good Practices for Access and Working Scaffolds, and special scaffold structures in steel. In addition to the main guard rail, an additional guardrail is required such that the gap between the toe-board and main guardrail does not exceed 470mm and all boards must be secured, without causing a tripping hazard.
- 35.2 All scaffolding shall be erected, modified and inspected by qualified competent scaffolders.
- 35.3 Where materials are to be positioned on scaffolding the Contractor’s supervision must ensure that the scaffolding is not overloaded.
- 35.4 Before use, scaffolding shall be inspected by an authorized Scaffold Inspector who shall complete a “scaffold tag” and secure it in a prominent position at the base of all ladder access points. The scaffolding tag will clearly show the following information as a minimum:
- Location.
 - Reference number.
 - Requested by.
 - Access Scaffold Classification.
 - Maximum distributed load/working lift.
 - Maximum number of working lifts to be used simultaneously.
 - Date erected.
 - Erected by.
 - Inspected by.
- 35.5 Scaffolds shall be inspected at weekly intervals or after storms by the authorised Scaffold Inspector who shall sign and date the “Scaffold Tag” after each inspection. Scaffolding not considered safe shall have the Scaffold Tag withdrawn and a prominent “DO NOT USE” sign displayed.
- 35.6 A scaffold register shall be maintained by the authorized Scaffold Inspector. This shall contain:

- Date of first and subsequent weekly inspections.
- Individual identifications of all scaffolds which shall be cross-referenced to the Scaffold Tag identity number.
- Clear name and signature of the authorized Scaffold Inspector against each separate scaffold inspected.

35.7 No scaffold may be erected which impedes normal access or can be accidentally struck by moving plant without prior consultation with OWNER/CONSULTANT to ensure that a safe system of work is in place.

35.8 Contractors are not permitted to erect or carry scaffolding near live overhead electrical cables, or equipment because of the danger of tubes making accidental contact with electrically charged apparatus.

35.9 If there is any doubt about the security of any anchorage, suspension points or ties for a scaffold, e.g., strength of existing buildings/structures, or those under construction, OWNER/CONSULTANT must be consulted before proceeding with erection.

35.10 All scaffolds must be provided with suitable access. Where ladders are used for this purpose they must be of adequate length and properly secured by lashing or fixing to prevent displacement.

35.11 Action shall be taken to warn personnel against using partly erected or dismantled scaffolds.

A prominent "DO NOT USE" sign shall be clearly displayed.

35.12 OWNER/CONSULTANT shall approve the sitting of the scaffold material racks/compounds.

35.13 Mobile tower scaffolds shall not be constructed with a height greater than 3 times the minimum base width and shall only be used on level ground. Towers shall only be erected by trained personnel.

35.14 In addition to weekly inspections, wooden scaffold boards shall be subject to a monthly inspection to ensure wood has not rotted or been subject to insect damage

35.15 The Contractor shall ensure that the system of work employed for the erection and dismantling of scaffolding shall not expose the Scaffolders to any risk.

35.16 All scaffolding must be erected and dismantled to the requirements laid down in the current regulations and guidance notes and to the requirements of OWNER/CONSULTANT.

36.0 LADDERS/STEPS

36.1 Ladders must be in good condition and free from defects, i.e., broken rungs, split stiles.

36.2 Ladders must not be painted.

36.3 Ladders must:

- Be securely fastened at the top.
- Be properly positioned at the base.
- Extend at least 1m (5 rungs) above the working platform.
- Be at an angle of 300mm out for every 1.2m vertical drop.

36.4 **All steps used on the project Site.**

36.5 Only one person must be allowed on a set of steps at any one time.

36.6 Persons must work with a set of steps of the appropriate height for the task.

36.7 The top rung of the steps must be kept at waist height, no work to be carried out above this height on steps.

36.8 Ladders are to be used as a means of access not as a working platform except for light, minor or one off activities. Then the person must wear a harness and tie- off to a suitable anchorage whilst carrying out the minor task.

37.0 FALL PROTECTION

37.1 Depending on the task and the risks, harnesses and appropriate anchorages/running lines will be used for activities carried out above a height of 2 meters.

37.2 Fall protection equipment shall be subject to regular inspection by a competent person, and a register maintained for OWNER/CONSULTANT' inspection.

37.3 During the execution of work at height, where it is not practicable to work from within a standard working platform with double handrail and toe boards (for example erection of structural steelwork, installation of roof components, etc), safety netting capable of catching a falling person must be installed as far as reasonably practicable.

37.4 The provision of safety netting does not relieve individuals from utilizing fall protection devices during the execution of the works.

37.5 The safety nets should be manufactured to Indian Standard and erected in accordance with good practices by a competent person.

37.6 The safety nets must bear a label stating the normal size of the net; the date of manufacture, the deflection at the centre of the net during the prescribed test and the maximum distance below the working height for which the net is designed to be used.

37.7 Test certificates must be provided for all safety nets, which will state the breaking strength of the net and provide details of the drop test carried out.

37.8 All safety nets must be periodically tested at intervals not exceeding three months – and records of these tests must be retained.

37.9 A formal inspection of safety nets must be carried out weekly to check for damage, loose ties, changes in anchorage points, etc. Records of these inspections must also

be retained.

38.0 MOBILE ELEVATED WORK PLATFORMS

38.1 The term Mobile Elevated Work Platform (MEWP) covers the following types of equipment:

- Scissor lifts.
- Telescopic booms or jibs.
- Articulating and telescopic booms.

38.2 Anyone who is to operate a MEWP must be competent and have received formal training accredited by manufacturer.

38.3 Prior to any MEWP being used on site, a formal risk assessment must be carried out to identify any potential hazards which may exist as a consequence.

38.4 Whilst working within the platform of a MEWP, all personnel must wear a safety harness which is attached to a secure anchorage point within the platform.

38.5 Before commencing work from a MEWP, the surrounding area should be cordoned-off to prevent personnel straying into a potentially hazardous area.

38.6 The Safe Working Load specified on the MEWP must not be exceeded.

38.7 If the MEWP has been manufactured with outriggers or stabilizers, they must always be deployed.

38.8 Prior to commencing work, ground conditions must be checked to ensure that the ground bearing capacity will not be exceeded by the loading from the MEWP. Where required, spreader plates shall be used to distribute the loading.

38.9 The MEWP shall only be permitted to travel with the platform occupied and/or the boom extended if it is within the machine's specified operational capabilities.

38.10 MEWP shall not be used as a jack, prop or support.

38.11 MEWP shall not be used as a crane or lifting device.

38.12 MEWP shall not be used primarily for the transport of goods or materials.

38.13 MEWP shall not be used in wind speed exceeding 30 mph (12.5 m/s).

38.14 All MEWPs must be subjected to a regular maintenance and inspection regime, which as a minimum will require weekly inspections by a competent person and a thorough examination every six months.

39.0 CONTRACTORS' TOOLS AND EQUIPMENT

39.1 All Contractors' tools and equipment must be fit for purpose. Tools should be CE marked.

- 39.2 Guards and electrical trip switches must work effectively and must not be removed or by-passed.
- 39.3 All tools shall be of good quality and maintained in a safe working condition. Homemade tools are not permitted.
- 39.4 The Contractor shall provide suitable storage with suitable racks and bins for storing tools and equipment.
- 39.5 All temporary construction leads, lighting and portable electric tools shall be of appropriate volts.
- 39.6 The Contractor shall nominate or employ the services of a competent qualified person to inspect and tag electrical power hand tools, transformers, distribution boards, extension cables, etc, on an at least a threemonthly basis (PAT testing). The tag shall display name, signature of the individual inspecting the tool and date of inspection.
- 39.7 The Contractor shall keep, on site, a register of all electrical power hand tools in use. The register shall detail:
- Individual identity number of the tool.
 - Name, signature and company of the qualified electrician carrying out the inspection.
 - Date of inspection.
 - Maintenance and Inspection schedule.
 - Remarks on condition of tool and whether repaired or withdrawn from use.
- 39.8 No electrically powered hand tool shall be used unless it is tagged with a current "INSPECTION" tag.
- 39.9 All electrical leads must be connected to the power source through standard industrial waterproofed plugs and sockets, which shall be in good condition.

40.0 MECHANICAL PLANT AND EQUIPMENT

- 40.1 Mechanical plant and equipment is defined as:
- Earthmoving plant.
 - Road making plant and equipment.
 - Concrete batching plant and mixers.
 - Forklift trucks.
 - Miscellaneous plant, including generators and compressors.
 - Mobile elevating work platforms (e.g., star-lift, cherry picker, etc).
- 40.2 All items of mechanical plant transported to the project shall be in a safe and sound condition and shall be properly maintained. Emissions shall be to acceptable limits and no smoke shall be discharged.
- 40.3 A programme of regular, preventative maintenance shall be established by the Contractor, as per the manufacturer's handbook, to ensure that all plant equipment is systematically inspected, maintained and repaired as necessary.
- 40.4 The preventative maintenance programme and the Contractor's employee responsible

for taking the action shall be clearly detailed, identified and given to OWNER/CONSULTANT.

- 40.5 A safe system of work must exist during all maintenance and repair operations to ensure that no part of the machinery is set in motion while work is being carried out.
- 40.6 Plant maintenance must not be carried out within the main construction site.
- 40.7 Where refueling is required, facilities provided shall be adequately covered by fire extinguishers, earthing, warning signs, bonding and proper fuel dispensers. Refueling areas shall be curbed to avoid spills.
- 40.8 Waste oil removed from vehicles after servicing shall be sent to the appropriate off-site waste disposal facility and this is the responsibility of the Contractor.
- 40.9 The OWNER/CONSULTANT'S tools, plant and equipment may not be used by Contractors without their express permission.

41.0 COMPETENCY/PLANT EQUIPMENT

- 41.1 All drivers and operators of mobile plant (mechanically propelled vehicles) shall be in possession of the appropriate license for the class of vehicle.
- 41.2 It is the responsibility of the contractor to ensure that all drivers, operators and banks men of mobile plant (mechanically propelled vehicles) are certificated as competent.

41.3 General

- 41.3.1 Every dangerous part of machinery shall be securely guarded.
- 41.3.2 Any guards removed for maintenance or repair purposes must be replaced before the machine is set in motion.
- 41.3.3 No mobile plant (mechanically propelled vehicles) shall carry passengers unless a proper fixed seat is provided, except when the equipment is specifically designed for standing personnel.
- 41.3.4 Mobile plant (mechanically propelled vehicles) must be parked on firm level ground when unattended, the engine stopped, brakes on and any load or attachment lowered to the ground and the keys left in the ignition.
- 41.3.5 No mechanical plant or equipment shall be sited on or operated on any area of the project without express the permission of OWNER/CONSULTANT.
- 41.3.6 All items of mobile plant (mechanically propelled vehicles) shall be fitted with a reverse warning audible alarm.
- 41.3.7 All drivers/operators of mobile plant (mechanically propelled vehicles) shall strictly obey the instructions of the site security, traffic regulations and speed limits. A banks man shall be in attendance during all reversing procedures.

41.4 Inspection

All mobile equipment (mechanically propelled vehicles) shall be inspected by a competent person appointed by the Contractor prior to use on site. Equipment considered to be unsafe, by OWNER/CONSULTANT, shall not be allowed access to the site.

41.5 Flame Arrestors

41.6 All mobile plant for use in Petro Chemical Live Plant Areas, or during the Start-up and Commissioning Phase of the project, must be fitted with Exhaust Flame Arrestors and Chalmers Valves where there is a risk of flammable gas releases.

42.0 MACHINERY GUARDING

42.1 Unauthorized personnel must not operate, interfere or tamper with plant or equipment.

42.2 Persons authorized to use machines must first check that guards are in position and that any other safety devices, e.g., emergency stops, are in working order.

42.3 All plant or equipment brought onto the site must be properly guarded to prevent injury and be CE marked.

NO GUARD OR FENCE MAY BE REMOVED FROM MACHINERY.

43.0 WELDING

43.1 Welding sets shall be in good condition, properly maintained and earthed.

43.2 Isolation switches on welding sets shall be readily accessible.

43.3 Terminals and live components shall be adequately protected.

43.4 Cables shall be frequently inspected to ensure the insulation is intact.

43.5 Damaged cables or electrical holders shall be properly repaired or replaced.

43.6 The welding return cable shall be secured onto the work piece. If this is not practical it shall be as near as possible.

43.7 Proper cable connectors shall be used when connecting runs of cables.

43.8 Welders shall wear:

- Face and eye protection with correct grade of filter.
- Welder's gauntlets.
- Long sleeved flame retardant overalls.

Welders shall wear safety helmets at all times, except whilst welding, when it is agreed as impractical and written permission is granted by OWNER/CONSULTANT, subject to mitigation of hazard, i.e., no work overhead, or shielded from falling objects.

43.9 Welding areas should whenever possible be screened off using flame retardant blanket or other suitable material. All combustible materials must be cleared from the vicinity of all welding operations.

43.10 Asbestos material shall not be used on the project.

43.11 Electric Arc Welding equipment and accessories shall conform to Latest Engineering Standards.

43.12 Fire extinguishers must be provided and kept adjacent to any welding or cutting activity.

44.0 ABRASIVE WHEELS

44.1 Contractors must ensure that any of their employees authorized to change Abrasive Wheels have attended an approved course of training and have been appointed in writing.

44.2 Details of each employee trained must be entered in the training register kept on site. Contractors must produce certificates and registers on request.

44.3 Machines used to drive Abrasive Wheels must be in good condition and properly guarded.

44.4 Pedestal or bench mounted grinders must have an emergency stop button and be fitted with a properly adjusted tool rest and guard.

44.5 All hand held grinders shall have a "Dead Man" switch and appropriate guards fitted.

44.6 The use of hand held angle grinders over 115mm shall only be permitted for specific tasks, subject to Owner's / Consultant's approval.

45.0 USE OF GAS AND OXYGEN EQUIPMENT

45.1 Compressed gas cylinders shall:

- Be in good condition and not suffering from corrosion.
- Be properly colour coded (reference should be made to National Standards).
- Be individually identified.

Hoses shall be properly colour coded to the internationally recognized standard for the gas being used, in good condition and fitted with hose connectors attached by permanent clips.

Check valves and flashback arrestors must be used on both hoses at all times.

45.2 Users shall check the equipment for perished, damaged hoses, regulators, and pressure gauges, etc. Defects must be reported to their supervisors and faulty equipment must be replaced.

45.3 When on site, cylinders must be in trolleys or secured in an upright position at all times. A bottle key shall be kept with cylinders in use.

- 45.4 Stored oxygen and fuel gas cylinders shall be kept separate with minimum separation distance of 5m. Cylinders must never be stored or used in a horizontal position cylinders must be secured in an upright position. Empty cylinders must also be separated from full cylinders. Cylinders shall be stored in lockable open mesh bottle cages.
- 45.5 All gas cylinders must be handled with care and they must not be misused or abused. They must be properly shut off when not in use and safety caps must be fitted when being moved.
- 45.6 Great care must be taken to ensure that gas equipment, including hoses, are not allowed to cause obstruction of roadways, walkways, manholes, ladders or other means of access where they can cause hazards or be damaged. Hoses not in use should be coiled up and put in a safe place. Hoses should whenever possible be supported off the ground.
- 45.7 Where any operation involves the use of gas and oxygen equipment in enclosed or semi- enclosed spaces, Contractors' supervision must carry out frequent checks to ensure these procedures are complied with.
- 45.8 During meal breaks and at stopping times, hoses and equipment must be removed from confined spaces or excavations. Oxygen or gas cylinders must not be taken into confined spaces for use or storage.
- 45.9 No modification to tanks or drums which have contained flammable liquid shall be undertaken at the site.

46.0 ABRASIVE AIR BLAST CLEANIN

- 46.1 Blast cleaning shall be carried out in an enclosed designated area.

Provision shall be made to prevent the spread of grit and dust out of the blast area and to collect and dispose of the spoil to an approved location.

- 46.2 The blast cleaning area shall be indicated by prominent warning signs.
- 46.3 Only approved abrasives having no free silica shall be used.
- 46.4 Personnel involved in the actual blasting of material shall be protected by a positive pressure, blast hood, meeting approved standards and providing both respiratory and eye protection, with breathing air supplied via a suitable filter.
- 46.5 The nozzle shall be fitted with a properly functioning dead man's handle, and anti-static abrasive blast hoses. It is required that all equipment be grounded and checked for ground potential
- 46.6 A standby man shall stay by the blast pot.

47.0 COMPRESSED AIR

- 47.1 All air receivers and compressors shall be in good condition and properly maintained.

47.2 Air receivers shall be individually identified and marked with their safe working pressure.

47.3 Air receivers shall be accompanied by a valid test certificate which shall be kept on site by the Contractor and shown to OWNER/CONSULTANT before bringing the vessel onto site.

47.4 All air receivers must be fitted with a properly set pressure relief valve.

47.5 Air receivers shall be examined and the pressure relief valve tested by an independent examiner at yearly intervals.

47.6 There shall be a register of all air receivers containing:

- Individual identification numbers.
- Dates of independent inspections.
- Name and signature of independent examiner.
- Rates safe working pressure.
- Pressure at which pressure relief valve lifted shall be kept on site by the Contractor along with all current certification.

47.7 The requirements inclusive also apply to compressor mounted air receivers.

47.8 All compressed air fittings shall be wired and/or restrained to prevent them from whipping should the coupling separate.

47.9 Only hose clamps designed for compressed air service shall be used. Worm drive (Jubilee) clips are not acceptable.

COMPRESSED AIR MUST NEVER BE USED FOR CLEANING CLOTHES.

47.10 Nozzles used for air blowing must be fitted with a "Dead Man" valve.

48.0 MOBILE PHONES AND PAGERS

48.1 Radios, personal CD and tape players are not allowed in the construction areas.

48.2 Mobile phones and pagers are prohibited in the designated construction areas by any hands-on personnel. External to the designated construction areas, providing it does not detract the user from any safety requirements and the user is stationary, then mobile phones and pagers may be used. **Other uses of this equipment will be at the discretion of OWNER/CONSULTANT.**

49.0

RADIOGRAPHY/NDT

-----Not applicable-----

50.0 WORKING OVER WATER/DIVING OPERATIONS

-----Not applicable-----

51.0 ASBESTOS

51.1 Only certified Contractors are allowed to handle asbestos.

52.0 IMPROVEMENT AND PROHIBITION NOTICES

52.1 In the event of an Improvement or Prohibition Notice being served by an Inspector, the OWNER/CONSULTANT Senior Representative must be notified immediately and the Contractor shall comply with the terms of such Notice immediately.

53.0 CARTRIDGE OPERATED FIXING TOOLS

The use of Cartridge Operated tools shall only be permitted with the express permission of OWNER/CONSULTANT, subject to an approved method statement and risk assessment, and use only by competent, trained operators).

54.0 SITE ESTABLISHMENT AND AMENITIES

55.1 Details of temporary services to be provided by Contractor or as Per Technical portion of ITB.

55.0 ACCOMMODATION

55.1 An area will be allocated for temporary site establishment facilities/services.

55.2 When required by the Contract, the Contractor shall provide and maintain (including de-watering when necessary) a suitable level and hardcore surface in the area allocated for temporary buildings such as offices, stores, workshops, mess huts and a stores compound.

55.3 When required by the Contract, the Contractor shall provide all site offices, stores facilities, workshops and mess huts for the accommodation of staff/site personnel. Proposals for the Contractor's temporary buildings shall be submitted to OWNER/CONSULTANT for approval with their tender.

55.4 Storage in Permanent Buildings

No Plant, Contractor's Equipment or Construction Aids shall be stored in any permanent building without first obtaining the written permission of OWNER/CONSULTANT. Such permission will not relieve the Contractor of the obligation to protect the building from damage whilst used as a store. If permission to use the building is refused by OWNER/CONSULTANT, the Contractor shall provide alternative storage facilities at no additional cost to OWNER/CONSULTANT.

55.5 Sanitary Facilities

All toilets and washing facilities shall be provided by the Contractor.

The supply and installation of necessary water sewage/drainage pipe work, pits, etc, for the facilities and the regular emptying and servicing are the responsibility of the Contractor.

55.6 Canteen

The Contractor must provide mess-huts for his employees and arrange any canteen facilities required for his employees and those of any others employed by him in connection with the Work.

56.0 TEMPORARY SERVICES

56.1 Telephone, Facsimile, etc

Arrangements for the provision of telephones, computer modems and/or facsimile facilities shall be made directly with providers of such facilities by the Contractor.

56.2 Electricity

If under the contract the Contractor is responsible for providing electricity for the site establishment amenities and working area(s), the Contractor shall ascertain the type, location and available spare capacity of the electrical point(s) of supply and provide cable, connections, isolating switches and earth leakage protection of approved specification.

If the Contractor's requirements for temporary electrical supplies exceed those agreed and render the available service inadequate, the Contractor shall provide the additional requirements at no extra cost to OWNER/CONSULTANT.

Electrical installations including all cables, temporary connections, wandering leads and all electrical facilities and/or equipment required for the execution of the Works shall be properly installed and maintained by the Contractor.

Temporary electrical installations must comply with all appropriate statutory requirements, the latest edition of the Institution of Electrical Engineers Regulations, COP for Distribution of Electricity on Construction and Building Sites and Electrical Safety on Construction Sites.

Electrical equipment and installation shall at all times be subject to inspection and approval by OWNER/CONSULTANT but this shall not relieve the Installer/User of their responsibilities for the safety of the system.

Electrical equipment or cables forming part of the permanent installation shall not be used by the Contractor for temporary services. Temporary buildings shall have an external isolating switch. The Contractor shall supply, install and maintain any temporary workface lighting.

56.3 Water

Supply of potable water for drinking and raw water for washing/toilet facilities, mixing concrete, hydrostatic testing and other construction purposes shall be in Contractor's scope. The Contractor shall ascertain the location of the supply point and shall provide and install any temporary pipe work necessary for the provision, use and disposal of such water.

57.0 DISCHARGES INTO THE INTERNAL AND EXTERNAL DRAINAGE SYSTEMS, LAND AND CONSTRUCTION AREAS

57.1 All proposed controlled discharges into the site drainage systems shall be agreed with

OWNER/CONSULTANT.

57.2 Any water discharged on existing roads, hard shoulders or drainage systems shall first pass through a filtering interceptor (which must be regularly cleaned) to prevent the discharge of sludge or solids.

57.3 Any damage to the Works caused by prolonged or excessive pumping and any damage or nuisance arising out of pumping operations shall be the liability of the Contractor.

57.4 Subsequent to filling with water and testing of any part of the Works for hydraulic testing, the Contractor shall be responsible for safe disposal of the water, and shall ensure that the rate of discharge is controlled and kept within the capabilities of any drainage system utilized.

57.5 The Contractor shall provide all requisite equipment and materials to ensure that all drains, rivers, streams or waterways are safeguarded against pollution.

58.0 MAINTENANCE OF ROADS AND DRAINS

58.1 The Contractor shall provide temporary protection to any existing roads to prevent all possibility of damage whatsoever arising from the Works.

58.2 The Contractor shall at all times in the execution of the work maintain all public and site roads in a clean condition to the satisfaction of OWNER/CONSULTANT.

58.4 The Contractor shall immediately remove all mud, earth and debris from road surfaces.

59.0 MATERIALS – STORAGE AND CONTROL

59.1 The Contractor must give a minimum of twenty-four hours notice of the intention to uplift and transport materials/equipment supplied free-issue from OWNER/CONSULTANT/Client' storage facilities to the point of erection or Contractor's storage facility.

59.2 Free-issue materials/equipment furnished by OWNER/CONSULTANT shall be accepted by the Contractor and become the responsibility of the Contractor until acceptance of the Works. Any damage caused to free-issue materials after acceptance shall be repaired or replaced by the Contractor to OWNER/CONSULTANT' satisfaction.

59.3 Storage of Petrol, Fuels, Lubricants etc

All fuel and construction materials which may contaminate the site drains, land or watercourses shall be stored in bounded areas. Refueling of plant shall be via bounded bowers. All construction plant in static locations shall have drip trays which shall be cleared daily.

59.4 Environmental Impacts

The Contractor shall, prior to commencement of the work, present to OWNER/CONSULTANT for their approval a register of environmental impacts that necessarily arise from their works.

Each identified environmental impact shall be accompanied by an individual Risk Assessment, clearly showing the reduction measures put in place to ensure mitigation of residual risk.

60.0 PENALTY

The Contractor shall adhere consistently to all provisions of HSE requirements. In case of non compliances and also for repeated failure in implementation of any of the HSE provisions, Consultant/Owner may impose stoppage of work without any cost & time implication to the Owner and/or impose a suitable penalty

The amount of penalty shall be limited to 0.5 % (Zero decimal five percent) of the contract value.

The amount of penalty applicable for the Contractor on different types of HSE violations is as below.

1. For not using personal protective equipment (Helmet, Shoes, Goggles, Gloves, Full body harness, Face shield, Boiler suit, etc.) **Rs 500/- per day/ Item / Person.**
2. Working without Work Permit/Clearance **Rs 20000/- per occasion.**
3. Execution of work without deployment of requisite field engineer / supervisor at work spot **Rs. 5000/- per violation per day.**
4. Unsafe electrical practices (not installing ELCB, using poor joints of cables, using naked wire without top plug into socket, laying wire/cables on the roads, electrical jobs by incompetent person, etc.) **Rs 10000/- per item per day.**
5. Working at height without full body harness, using non-standard/ rejected scaffolding and not arranging fall protection arrangement as required, like handrails, life-lines, Safety Nets etc. **Rs. 10000/- per case per day.**
6. Unsafe handling of compressed gas cylinders (No trolley, jubilee clips double gauge regulator, and not keeping cylinders vertical during storage/handling, not using safety cap of cylinder). **Rs 500/- per item per day.**
7. Use of domestic LPG for cutting purpose / not using flash back arresters

on both the hoses/tubes on both ends. **Rs. 3000/- per occasion.**

8. No fencing/barricading of excavated areas /trenches.Rs. 3000/- per occasion.
9. Not providing shoring/strutting/proper slope and not keeping the excavated earth at least 1.5M away from excavated area. Rs.5, 000/- per occasion.
10. Non display of scaffold tags, caution boards, list of hospitals, emergency services available at work locations.Rs.1000/- per occasion per day
11. Traffic rules violations like over speeding of vehicles, rash driving, talking on mobile phones during vehicle driving, wrong parking, not using seat belts, vehicles not fitted with reverse horn / warning alarms / flicker lamps during foggy weather. Rs.2000/- per occasion per day
12. Absence of Contractor's RCM/SIC or his nominated representative (prior approval must be taken for each meeting for nomination) from site HSE meetings whenever called by Consultant/Owner & failure to nominate his immediate deputy (in the site organ gram) for such HSE meetings. Rs10000/- per meeting.
13. Failure to maintain HSE records by Contractor Safety personnel, in line with approved HSE Plan/Procedures/Contract specifications.Rs 10000/- per month.
14. Failure to conduct daily site safety inspection (by Contractor's safety engineers/ safety officers), internal HSE meeting, internal HSE Awareness/Motivation Program, Site HSE Training and HSE audit at predefined frequencies (as approved in HSE Plan).Rs.10000/- per occasion.
15. Failure to submit the monthly HSE report by 5th of subsequent month to Project's Engineer- in-Charge /Owner Rs. 10000/- per occasion and Rs.1000/- per day of further delay.
16. Poor House Keeping Rs. 5000/- per occasion per subject
17. Failure to report & follow up accident (including Near Miss) reporting system within specific time frame.Rs. 20000/- per occasion
18. Degradation of environment (not confining toxic spills, spilling oil/lubricants onto ground).Rs10000/- per occasion
19. Not medically examining the workers before allowing them to work at height / to work in confined space / to work in shot-blasting / to work for painting / to work in bitumen or asphalt works, not providing ear muffs while allowing them to work in noise polluted areas, made them to work in air polluted areas without respiratory protective devices,etc. Rs 5000/- per occasion per worker.
20. Violation of any other safety condition as per job HSE plan / work permit and HSE conditions of contract (e.g. using crowbar on cable trenches, improper welding booth, not keeping fire extinguisher ready at hot work site, unsafe rigging

practices, non- availability of First-Aid box at site, not using hood with respiratory devices by blaster for shot//grit blasting, etc.) Rs. 5000/- per occasion.

21. Failure to carry-out Safety audit in time (internal & external), close-out of identified shortfalls of Observations of Safety Aspects(OSA),etc. Rs. 20,000/- per occasion.
22. Carrying out sand blasting instead of grit/shot blasting Rs. 50,000/- per day.
23. Failure to deploy adequately qualified and competent Safety Officer Rs. 10000/- per day per Officer.
24. Utilization of hydra/ back-hoe loader for material shifting or any other unauthorized /unsafe lifting works Rs 25,000/- per occasion.
25. Any violation not covered above to be decided by Consultant/Owner.
26. Any physical injury - maximum of Rs.2,00,000 per injury
27. Fatal accident - Rs. 25,00,000 per fatality

61.0 FOLLOWING SHALL BE APPLICABLE FOR MANDATORY MEDICAL EXAMINATION OF CONTRACTOR WORKERS BEFORE DEPLOYMENT AT WORK SITE:

Medical examination will be in the scope of the contractors.

Medical examination to be conducted by a doctor with minimum MBBS qualification, having registration number for practicing.

Certificate issued should have endorsement on the photo & clearly mention general health/fitness of the candidate to carryout work inside plant, including eye sight, Vertigo, BP,Heart, convulsion problem etc.

Certificate of fitness is to be issued on letter head of doctor and to be produced with application for photo Gate pass to the E-I-C for the job.

Validity of medical certificate will be for one year from the date of issuance.

SECTION– VII

SCOPE OF WORK & TECHNICAL SPECIFICATIONS

SECTION 7 SCOPE OF WORK & TECHNICAL SPECIFICATIONS

BRIEF SCOPE OF WORK

Animal Husbandry department aims at development of necessary infrastructure like cowsheds, fodder storage & training center in parallel with training programs for its officials on latest technologies. The project envisages construction of a new facility for the cattle in the area under Gokulgram scheme.

BRIEF DESCRIPTION OF THE PROJECT SITE

The proposed site for Civil works of setting up Farm for the "Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh is situated at Bagthan, District Sirmour, Himachal Pradesh. The geographical coordinates of the site are 30°41'21.9"N 77°16'26.0"E .

7.1 SCOPE OF WORK:

The scope of work includes all required activities for Civil works of setting up Farm for the "Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh. The scope of works includes but not limited to the following:

Comparative statement for Proposed facilities with area statement for "Conservation of Himachali Pahari Breed of Cattle, Bhagthan, Sirmaur District, Himachal Pradesh"			
S. No.	Particulars	Building Foot Print area	
	Civil Works	Area in Sq.ft.	Area in Sq.mt.
1	Construction of Sheds with Courtyard	5,888	547
2	Milk barn shed	1,470	137
3	Calving pen	1,835	170
4	Calf Pen	753	70
5	Heifer Shed	977	91
6	Isolation Shed	589	55
7	Hay Store and Feed store	2,379	221
8	Bull Shed	977	91
9	Adm block Veterinary Dispensing unit & office infrastructure with complete fixtures	3,983	370
10	Training centre		
11	Silo-pit		
12	Land Development and Fodder tree plantation		0
	Total	18,899	1,756

- Bidders are requested to carefully examine the site condition.**
- Any statutory approvals required for completion of works will be in the scope of bidder.
- One vehicle @1500kms per month for the project duration is to be provided by the contractor for supervising the work, cost of which included in the BoQ items

- iv. Any other item not covered above but required to complete the work is also under bidders' scope.

A. DESIGN AND DRAWINGS OF PROJECT / WORKS

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, as per client requirements and due to unforeseen conditions and as per the decision by Engineer In-charge.

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 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, if any, required before start of the work / during the work / after execution of work & before handing over the Project. The fee for getting this approval shall be deposited by the Contractor to the concerned Department / Authorities and will be reimbursable to the Contractor on producing of original receipt of deposited fee and no extra cost for the same shall be claimed by the contractor.

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. MATERIALS AND TESTING OF MATERIALS FOR QUALITY

The materials shall be subject to inspection and approval of the Engineer-In-Charge. The contractor shall be required to get necessary tests carried out of materials / work from an approved laboratory approved by the Board. Any construction material will get tested at the cost of the contractor. The contractor will set up a site laboratory for testing of Coarse Aggregate, Fine Aggregate & Compressive Strength of Concrete, etc.

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.

7.2 TECHNICAL SPECIFICATIONS

The works of the project shall be executed as per Approved Drawings, Bill of Quantity, list of Approved makes of works, General Technical specifications of works and other conditions mentioned in the tender document.

7.3 CIVIL WORKS

General Technical Specifications

The General Technical Specification of Civil Works will be as per the Bill of Quantities, provision within HP SOR (*Civil, Plumbing Works, Electrical & Fire Fighting Works*), IS Codes, Building Codes, approved drawings, Standard Norms and standard specifications of particular works.

SPECIFICATION, CODES AND STANDARDS

Indian Standards Institution

Standards: All materials and workmanship shall comply with the relevant Indian Standards along with other relevant IS codes as amended upto date or latest CPWD specifications.

7.4 GENERAL SPECIFICATIONS

EXCAVATION: The Work shall consist of removing material for the placement of foundations, substructure units, including the disposal of surplus and unsuitable material, as shown on the Drawings and as described in BIS codes and CPWD Specification.

1) EXCAVATION METHODS

- a) The Contractor shall excavate only material that is necessary for the construction of the structure and shall not excavate outside the limits of excavation shown on the Drawings.
- b) Depth of Excavation and Condition of Base Excavations shall be completed to the elevations and dimensions as shown on the Drawings, or to the elevations directed by the Engineer in the field in order to obtain firm, stable foundations.
- c) Excavations shall be dewatered and maintained dewatered so that the material is excavated in its natural state and construction of the foundations is completed in the dry. The bottom of the excavation shall be kept free from excessive moisture and free-flowing water. This shall be done to the satisfaction of the Engineer.
- d) The concrete working base shall be placed immediately after the excavation is completed, and the Engineer has approved the depth of the excavation and the character and condition of the foundation material
- e) Excavated material to be reused as backfill material shall be stockpiled within a suitable area approved by the Engineer.

1.1 QUALITY MANAGEMENT: After each excavation is completed, the Engineer will inspect the base of the excavation before any further work can proceed. All fossils, coins, articles

of value or antiquities and structures and other remains or things of geological or archaeological interest discovered on the Site of the Works shall be deemed to be absolute property of the Employer and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing and shall, immediately upon discovery thereof and before removal, acquaint the Project Director or Project Director's representative of such discovery and carry out the Project Directors instructions for dealing with the same.

2) BRICKS

The bricks shall be first class kiln-burnt bricks of regular and uniform size, shape and color, well burnt throughout. They shall be free from cracks or other flaws viz. lumps of lime, laminations, soluble salts causing efflorescence, air-holes which may in any way impair their strength durability, appearance etc.

They shall give a clear metallic ringing sound when struck together.

After absorbing water the bricks shall not exceed 20% of their dry weight as per IS: NO. 1077 - 19970. According to IS: NO. 1077 - 1970 crushing load shall not be less than 75 Kg./Sq. Cm.

The brick to be used for the entire work shall be approved by the Engineer-in-Charge (EIC)/ Consultant beforehand from time to time.

3) SAND

The source from which sand is to be obtained shall be subject to the approval of Engineer-in-charge. The sand shall be clean, sharp and gritty to touch and be freed from earth and other impurities by washing.

The sand shall be washed to such a degree that when a handful is mixed with clean water in a glass and allowed to stand for an hour the precipitate of mud over the sand shall not exceed 5%.

COARSE SAND

It is to be screened through a sieve of 64 meshes to the square inch so as to exclude large particles from the work. The fineness modulus shall not be less than 1.0.

FINE SAND

It is to be screened through a sieve of 64 meshes to the square inch so as to exclude large particles from the work. The fineness modulus shall not be less than 2.5. The sand should conform to IS 382-1982 for fine and course aggregates from natural sources.

4) STONE CHIPS

It shall be obtained from crushing trap quartzite or hand stones and from quarries approved by Engineer-in-charge. It shall be of approved quality and proper grade. It shall pass through $\frac{3}{4}$ "mesh and retained on $\frac{1}{4}$ "mesh. It shall be free from dirt, leaves, clay and any organic matter. The material conforming generally to IS 383-

1983 for course and fine aggregate from natural sources or IS 515-1959 for natural and manufactured aggregates for use in mass concrete with latest revisions.

5) CEMENT

For all type of cement related work. 43 grade Ordinary Portland Cement (OPC) or Portland slag cement conforming to relevant IS Codes given at the beginning (latest revision) is to be used depending upon the type of the structures.

6) REINFORCEMENT

6.1 Reinforcement steel bars

Fe 415 HYSD conforming to IS: 1786 shall be used. The tenderer shall inform the client prior to start of work, regarding the type of steel to be used by him, in the works and get them approved accordingly.

6.2 Straightening, shaping to form and Cutting steel works

The steel section shall be straightened and cut to lengths specified and measured with a steel tape. The cut ends shall be finished smooth. No two pieces shall be welded to make up the required length of a member.

6.3 Hoisting and placing in Position the steel bars

- a. Steel work shall be hoisted and placed in position carefully and in most cases mechanical appliances such as lifting tackle, winch and derrick, etc. shall be used.
- b. Minimum thickness of steel members including angles, which comes in contact with water, will not be less than 6 mm.

7) WATER

The water to be used in making and curing of concrete, mortar etc. shall be free from objectionable quantities of silts, organic matter, injurious amount of oils, acids, salts and other impurities etc. as per IS-456-1978&2000.

The Engineer-in-charge or his authorized representatives will determine whether or not such quantities of impurities are objectionable.

Such comparison will usually be made by comparison of compressive strength, water requirement, time of setting and other properties of concrete made with distilled or every clean water and concrete made with the water proposed for use, Permissible limit for solids when tested in accordance with I.S. 3025-1964.

8) CEMENT CONCRETE

All the specification of design cement concrete mix shall be in line with the scope of works. The concrete shall consist of an aggregate of the proportion by volume defined in relevant schedule item or work. Only measured quantity shall be used.

8.1 Laying: The cement, sand and stone chips shall be mixed properly in mechanical mixer in such a manner as to avoid loss of water. The concrete shall be mixed for minimum period of 2 minutes or until it is of even colour and uniform consistency throughout. As soon as the concrete is mixed it should be removed to the work in iron vessels as rapidly as practicable. The concrete laid will be vibrated for compaction by the vibrators. Slump test will be carried at site during execution of work.

8.2 Curing: The concrete laid shall not be disturbed and shall be kept thoroughly damped by means of wet matting and sand until it shall have become thoroughly set and hard enough to prevent its drying and cracking.

The aggregate shall consist of stone ballast of quality approved by Engineer-in-charge and shall consist of graded size 20 mm and down wards as per PWD specification or the size mentioned in the item description

Contractor shall furnish on the site of work sufficient number of centering, moulds or templates for its expeditious execution. The forms shall be made in such a way and of such materials as will ensure a smooth surface on the finished concrete. Forms and centering shall be left in place until the concrete has set sufficiently to permit the removal without danger to the structure.

Curing of concrete should be done as per IS – 456 Clause – 13.5.

9) REINFORCED CEMENT CONCRETE:

All R.C.C. work shall be of the grade as per specifications given in BOQ . The materials will be measured by weight when dry. The stone chips should be thoroughly washed in clean water and stacked.

9.1 Strength Requirement of Concrete

The strength requirement specified in Table 1 shall apply to both design mix concrete and nominal mix cement.

TABLE 1:

STRENGTH REQUIREMENTS OF CONCRETE CHARACTERISTIC STRENGTH OF 15 CM CUBES AT 28 DAYS

Grade	N/mm²
M 15	15
M 20	20
M30	30

9.2 Mix Proportion

The determination of the proportions for cement aggregates and water to attain the required strength shall be one of the following:

By design the concrete mix concrete shall be called "Design Mix Concrete".

By adopting nominal concrete mix concrete shall be called "Nominal Mix Concrete".

9.3 Laying

Cement, sand and stone chips shall be mixed properly in a mechanical mixer in such a manner as to avoid loss of water. The concrete shall be mixed for minimum period of

2 minutes or until it is of even color and uniform consistency throughout. As soon as the concrete is mixed it should be removed to the work in iron vessels as rapidly as

practicable. The concrete laid will be vibrated for compaction by vibrators. Slum test will be carried at site during execution of work and confirm to IS – 456 – 2000.

9.4 Curing: The concrete laid should not be disturbed and shall be kept damped by means of wet matting and sand until it shall have become thoroughly set and hard enough to prevent its during and cracking.

The aggregate shall consist of stone ballast of quality approved by Engineer-in-charge and shall consist of graded size 20 mm and downwards as per PWD specification or the size mentioned in the item description.

9.5 Form Work: Contractor shall furnish on the site of work sufficient number of centering, forms, mould or templates for its expeditious prosecution, the forms shall be made in such as way and such material as will ensure a very smooth surface on the finished concrete.

Forms and centering shall be left in place until the concrete has set sufficiently to permit the removal without danger to the structure.

10) CEMENT PLASTER: 12 mm thick cement plaster in (1:4) proportion shall be applied on outside surface of all concrete works from 30cm below ground level up to top. The inner surface of the boundary wall shall be 15mm thick cement plaster (1:4). The surface in contact with water will have 12 mm thick cement plaster of not less than (1:3) proportion with 3% water proofing compound. The concrete surface shall be properly hacked, washed, cleaned and applied with thick cement slurry before applying. All brick work unless otherwise specified will be plastered externally and internally with 12mm cement plaster (1:6) proportion.

The plaster shall be protected from sun, rain and frost at the contractors expense by such means as the engineer may approve.

To protect the plaster from the sun, ordinarily the whole surface shall be covered with wet sacks. The contractor shall keep the plaster continuously wet for a period of seven days after application.

7.5 MEASUREMENTS, FURNISHED SITE OFFICE & VEHICLE

a) The contractor shall construct a temporary site office for supervisory staff of the WAPCOS and shall also provide necessary furniture & a vehicle for site supervision work. No extra payment for this shall be made on this account.

On account of furnished Project office equipped with all facilities such as telephone, fax, internet, photocopier, computer/ laptop & printer along with operator, regular electric & purified drinking water supply and inspection vehicle etc. as per the requirement of the project an amount equal to X % (As detailed below in table) of gross bill from all running account & final bill will be recovered. The contractor shall also make sufficient arrangement for Photography/Videography preferably by maintaining a camera/video camera at site so that video photographs can be taken of a specific activity at any point of time. The contractor shall also provide software like MS Project etc. for the purpose of preparing progress report etc.

Where 'X%' will be on project cost as mentioned in table:

S. No.	Project Cost	Percentage deduction in lieu of amenities (X %)
1.	Upto 5 Crores	2%
2.	Between 5 Crores to 100	1%
3.	Above 100 Crores	0.5%

On completion of the work the contractor shall remove hutments failing which the WAPCOS will dismantle and clear the site at his risk and cost

b) The Joint measurement of the boundary wall will be conducted for the measurement of works. All the Joint measurement shall be arranged by contractor at his cost.

7.6 CONTRACT PERIOD

The proposed period of contract is as per the tender document

7.7 RATE

- 7.1 The tendered item rate for all items of the work shall be considered inclusive of all leads and lifts, fuel, skilled or unskilled labour & material required for working at all heights and depths, as per the drawings, royalty fee, terminal taxes, Octroi, entry tax etc, besides other taxes payable by the contractor such as Income Tax and Sales Tax on work contract and the sales tax applicable on the goods/material. Nothing extra shall be paid unless otherwise given in the description of item and no extra claim shall be entertained due to any reasons whatsoever on this account.
- 7.2. Nothing extra shall be paid unless otherwise specified on account of cutting of grass, bushes, levelling of undulation in the ground, existence of drain and temporary structures etc. requiring removal and difficulty due to space constraints.
- 7.3. Nothing extra shall be paid for working in foul conditions, dewatering or diversion unless otherwise specified. The tendered rates shall not be subject to any revisions for want of any information.

- 7.4 The bidders are requested to go through in detail the technical specifications and drawings attached alongwith the tender document before quoting rates for the tender. Later during the execution of work no claim shall be admissible for any component of the work included in this tender and the bidder has to complete the entire work within the quoted rates.

7.8 BAR CHART

The contractor shall be required to submit a detailed programme for completion of work within the stipulated period, in the form of a Bar Chart, covering all major activities, to the Engineer-in-charge within 10 days from the date of award of work. Modifications suggested by the Engineer-in-charge shall be incorporated in the Bar Chart. It will be ensured by the contractor that the time schedule as laid down in the aforesaid Bar Chart/mile stone is adhered to. Action for not receiving the mile stone shall be taken as per the provisions given in the clauses of contract.

7.9 SITE OFFICE

1. The contractor shall construct a temporary site office for supervisory staff of the WAPCOS and shall also provide necessary furniture. No extra payment for this shall be made on this account.
2. On completion of the work the contractor shall remove hutments failing which the WAPCOS will dismantle and clear the site at his risk and cost.

7.10 SIGN BOARD

The contractor shall provide board indicating complete name of work, date of start, date of completion, name of WAPCOS, with office address, name of the executive agency, at his own cost at the site of work.

7.11 LEVELING INSTRUMENT/SURVEY EQUIPMENTS

The contractor must always make available and accurate levelling instrument, ETS at the site of work. Necessary levels will be given by the contractor or his authorized Engineer and the same will be checked by the site staff of the WAPCOS.

7.12 BENCH MARK

The contractor shall establish at his own cost, at suitable points, additional reference points/lines, benchmarks as may be necessary. The contractor shall remain responsible for the sufficiency and accuracy of all bench marks and reference lines.

The temporary bench marks shall be connected with permanent standard bench marks.

7.13 CHANGE OF ADDRESS OF CONTRACTOR

Any change in the address of the contractor shall be forthwith intimated in writing to WAPCOS. WAPCOS will not be responsible for any loss or inconvenience suffered by the contractor on account of his failure to comply with this.

7.14 CANCELLATION OF DOCUMENTS

The cancellation of any document such as power of attorney, partnership Deed etc., shall forthwith be communicated by the contractor to WAPCOS in writing failing which WAPCOS shall have no responsibility or liability for any action on the strength of said documents.

7.15 DISSOLUTION OF CONTRACTOR'S FIRM

If the contractor's firm is dissolved due to death or retirement of any partner or for any reasons whatsoever before fully completing the whole work or any part of it undertaken by the Principal agreement, the partners shall remain jointly, severally and personally liable to complete the whole work to the satisfaction of WAPCOS and to pay compensation for loss sustained, if any, by WAPCOS due to such dissolution. The amount of such compensation shall be decided by the Engineer-in-charge and his decision in the matter shall be final and binding.

7.16 DEPLOYMENT OF PLANT AND MACHINERY

The deployment of all plant and machinery including moving machines shall be such as not to infringe or cause damage to Government or private properties. Operation of such equipment involving infringement to moving dimensions prescribed in the handbook of the Schedule of Dimensions of the WAPCOS shall not be undertaken without the prior approval of the Engineer-in-charge. For any loss or damage resulting from violation of this clause the contractor(s) shall be wholly responsible.

7.17 SAFE WORKING METHODS

The contractor shall at all time, adopt such safe methods of work as will ensure safety of structures equipment and labour. If at any time the WAPCOS finds the safety arrangements inadequate or unsafe the contractor shall take immediate corrective action as directed by WAPCOS representative at site. Any dereliction in the matter shall in no way absolve the contractor of his sole responsibility to adopt safe working methods.

7.18 ROYALTIES AND PATENT RIGHTS

The contractor shall defray the cost of all royalties, fees and other payments in respect of patent rights and licenses which may be payable to any patentee, licensee or other

person or corporation and shall obtain all necessary licenses. In case of any breach (whether willfully or inadvertently) by the contractor of this provision the contractor shall, indemnify the WAPCOS and their officers, servants, representatives against all claims, proceedings, damages, cost charges, acceptances loss and liability which they or any of them sustain incur or be put by reason or in consequence directly or indirectly of any such breach and against payment of any royalties, damages other monies which the WAPCOS may have to make to any person or any machine, instruments, process, articles, matters, or thing constructed, manufactured, supplied or delivered by the contractor to his order under this contract.

7.19 CONTRACT DOCUMENTS

The contractor shall be furnished, free of charge, with one copy of the contract documents and one set of all relevant drawings, which may be issued during the progress of the works. He shall keep these documents on the site in good order, and the same at all reasonable times are available for inspection and use by the Engineer-in-charge, his representative or by other inspecting Officers.

7.20 WORKS TO BE CARRIED OUT

The works to be carried out under the contract shall except as otherwise provided in these conditions, include all labour, materials, tools, plant, equipment, and transport which may be required in preparation of and for full entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include waste on materials, carriage and cartage, carrying in return of empties, hoisting, setting for fitting and fixing in position and all other labour necessary for the full and entire execution and completion as aforesaid in accordance with good practice and recognized principles.

7.21 SUFFICIENCY TO TENDER

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 rate quoted, which shall cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

7.22 SUSPENSION OF WORKS

The contractor shall, on receipt of the order in writing of the Engineer-in-charge, suspend the progress of the work or any part thereof for such time and such manner as the Engineer -in-charge may consider necessary for any of the following reasons:

- i) On account of any default on part of the contractor; or
- ii) Improper execution of the work or part thereof for reasons other than the default of the contractor; or

iii) 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.

7.23 CONTRACTOR'S SUPERVISIONS

The contractor shall either himself supervise the execution of the works or shall appoint a competent agent approved by the Engineer-in-charge. If the contractor has himself not sufficient knowledge and experience to be capable of receiving instructions or cannot give his full attention to the works, the contractor shall at his own expense, employ as his accredited agent an Engineer approved by the Engineer-in-charge. Orders given to the Contractor's agent shall be considered to have the same force if these had been given to the contractor himself. If the Contractor fails to appoint a suitable agent as directed by the Engineer-in-charge, the Engineer-in-charge shall have full powers to suspend the execution of the works until such date as a suitable agent is appointed and the Contractor shall be held responsible for the delay so caused to the works.

The Engineer-in-charge or his representative shall have powers at any time to inspect and examine any part of the works and the contractor shall give such facilities as may be required for such inspection and examination.

7.24 SUB-LETTING OF CONTRACTS

The contractor shall not sublet the work or any part thereof for any benefit or any interest thereon.

Any claim arising of the contract in any case. However, contractor may adopt piece work system in respect of supply of materials or supply of equipments of special nature but shall be fully responsible to the Govt. for the omissions and commissions of piece work and of person either directly or indirectly employed.

7.25 INSTRUCTIONS AND NOTICES

Subject as otherwise provided in this contract all notices to be given on behalf of the WAPCOS and other actions to be taken on its behalf may be given or taken by the Engineer-in-charge or any Officer for the time being entrusted with the functions, duties and powers of the Engineer-in-charge.

- i. All instructions, notices and communications etc. under the contract shall be given in writing and if sent by registered post to the last known place of above or business of the Contractor shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him.
- ii. The contractor or his Agent shall be in attendance at the Site(s) during all working hours and shall superintend the execution of the works with such additional assistance in each trade as the Engineer-in-charge may consider

necessary. 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.

- iii. Site inspection register will be maintained by the Engineer-in-charge or his day representative in whom the contractor or his agent will be bound to sign day to day entries made by the Engineer-in-charge or his representative. The contractor is required to take note of the instruction given to him in site inspection register and should comply within a reasonable time. The contractor will also arrange to receive all the letters etc. issued to him at the site of work.

7.26 FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORKS

If at any time after acceptance of the tender the WAPCOS 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 have no claim to any payment of compensation 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 for enclosure of the whole or part of the works.

- a. 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 because of the foreclosure.
- b. Any expenditure incurred on preliminary site work e.g. temporary access roads, temporary labour huts, staff quarters and site offices, storage accommodation and water storage tanks.
- c. 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) provided, however WAPCOS shall be bound to take over the materials or such portions thereof as the Contractor does not desire to retain. For materials taken over by the WAPCOS, cost of such materials, shall take into account purchase

prices, cost of transportation and deterioration or damage which may have been caused to materials while in the custody of the contractor.

- d. For the contractor's materials not retained by the WAPCOS, reasonable cost of transporting such material from site to Contractor's permanent stores or to his other works whichever is less shall be paid by WAPCOS. If materials are not transported to either of the said places, no cost of transportation shall be payable.

7.27 TERMINATION OF CONTRACT FOR DEATH

If the contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the contractor is a partnership concern and one of the partners dies then unless the Accepting Authority is satisfied that the legal representatives of the individual contractor or the proprietor of the proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the contract, the Accepting Authority shall be entitled to cancel the contract as to its incomplete part without the WAPCOS being in any way liable to payment of any compensation to the estate of the deceased contractor and/or to the surviving partners of the contractor's firm on account of the cancellation of the contract. The decision of the Accepting Authority that the legal representative of the deceased contractor or the surviving partners of the contractor firms cannot carry out and complete the contract shall be final and binding on the parties.

7.28 LAWS GOVERNING THE CONTRACT

This contract shall be governed by the Laws as applicable in Himachal Pradesh State for the time being in Force.

7.29 COURTS JURISDICTION

In case of any disputes/differences between contractor & WAPCOS the jurisdiction shall be within the courts situated in DELHI only.

7.30 IMPLEMENTATION OF QUALITY MANAGEMENT SYSTEM

The Contractor shall follow and implement Quality Management System as per ISO-9001-2000.

7.31 HEALTH AND SAFETY DURING CONSTRUCTION

The Contractor shall execute the work following the guide lines as per standard codes and regulations for "Health and Safety during construction" and safety policy of the WAPCOS which shall include providing safety equipment, safety shoes, helmets to all workers, erecting of safety barricades and displaying safety posters and instructions about awareness for safety.

7.32 TIMELY CALIBRATION

The Contractor shall arrange timely calibration of all his measuring and testing equipment at his own cost from reputed laboratory and supply of calibration certificates to the Engineer.

7.33 INSTRUCTIONS AND CHECK LISTS

The Contractor shall implement full process control by issue of work instructions and check lists and maintaining latest drawings, specifications and codes.

7.34 QUALITY ASSURANCE SYSTEM

The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. Such system shall be in accordance with the details stated in the Contract. Compliance with the quality assurance system shall not relieve the Contractor of his duties, Obligations or responsibilities.

7.35 FORCE MAJEURE

If, at any time during the currency of the contract, the performance of any obligation (in whole or in part) by the Engineer-in-Charge or the Contractor shall be prevented or delayed by reason of any war, hostilities, invasion, acts of public or foreign enemies, rebellion, revolution, insurrection, civil commotion, sabotage, large scale arson, floods, earthquake or any other act of God, large scale epidemics, nuclear accidents, any other catastrophic unforeseeable circumstances, quarantine restrictions, any statutory, rules, regulations, orders or requisition issued by a Government WAPCOS or competent authority(hereinafter referred to as "event") then, provided notice of the happening of such an event is given by either party to the other within 21 days of the occurrence thereof.

i. Neither party by reason of such event be entitled to terminate the contract or have claim for damages against the other in respect of such non-performance or delay in performance.

ii. The obligations under the contract shall be resumed as soon as practicable after the event has come to an end or ceased to exist.

iii. If the performance in whole or part of any obligation under the contract is prevented or delayed by reason of the event beyond a period of 180 days, the contract

may be fore-closed with mutual consent by giving a notice of 30 days without any repercussions on either side.

iv. In case of doubt or dispute, whether a particular occurrence should be considered an “event” as defined under this clause, the decision of the Engineer shall be final and binding.

v. Works that have already been measured shall be paid for by the Engineer even if the same is subsequently destroyed or damaged as a result of the event. The cost of rebuilding or replacing any work that has been measured shall be borne by the WAPCOS.

vi. If the contract is fore-closed under this clause, the Contractor shall be paid fully for the work done under the contract, but not for any defective work or work done which has been destroyed or damaged before its measurement. The Engineer shall have the option to take over any plant and material lying at site, at rates provided for in the contract, failing that, as per rates which are determined to be fair and reasonable by the Engineer.

vii. If no notice is issued by either party regarding the event within 21 days of occurrence, the said event shall be deemed not to have occurred and the contract will continue to have effect as such.

7.36 DELAY AND EXTENSION OF CONTRACT PERIOD

The time allowed for execution and completion of the works or part of the works as specified in the contract shall be strictly followed and the time shall be essence of the contract on the part of the Contractor. As soon as it becomes apparent to the Contractor, that the work and / or portions thereof, Cannot be completed within the period(s) stipulated in the programme submitted by contractor and accepted by the WAPCOS or the extended periods granted, he shall forthwith inform the Engineer and inform him of the reasons for the delay, as also the extra time required to complete the works and / or portions of work, together with justification therefore. In all such cases, whether the delay is attributable to the Contractor or not, the Contractor shall be bound to apply for Extension well within the period of completion/extended period of completion of the whole work and / or portions thereof.

7.37 EXTENSION DUE TO MODIFICATIONS

If any modifications are ordered by the Engineer or site conditions actually encountered are such, that in the opinion of the Engineer the magnitude of the work has increased materially, then such extension of the stipulated date of completion may be granted, as shall appear to the Engineer to be reasonable, with the approval of WAPCOS / Approval Authority of Client.

7.38 DELAYS NOT DUE TO ENGINEER-IN-CHARGE /CONTRACTOR

- i. If the completion of the whole works (or part thereof which as per the contract is required to be Completed earlier), is likely to be delayed on account of:-
 - a. Any force majeure event referred to in Clause 32.0 or
 - b. Delay on the part of other Contractors engaged directly by the Client, on whose Progress the performance of the Contractor necessarily depends or
 - c. Any relevant order of court or
 - d. Any other event or occurrence which, according to the Engineer is not due to the Contractor's failure or fault, and is beyond his control;
- ii. The Engineer may grant such extensions of the completion period as in his opinion is reasonable.

7.39 DEPLOYMENT OF PLANT AND MACHINERY

The deployment of all plant and machinery including moving machines shall be such as not to infringe or cause damage to existing structures or any other Government or private properties. For any loss or damage resulting from violation of this clause the contractor(s) shall be wholly responsible.

7.40 STORAGE OF PETROLEUM PRODUCTS

No petroleum, spirit shall be stored at site or adjacent to it, until the approval of the WAPCOS and necessary license under the Act has been obtained by the contractor

7.41 SAFE WORKING METHODS

The contractor shall at all-time be responsible to take all precautions and adopt such safe methods of working as will ensure safety of public, structures equipment and workers. If at any time the WAPCOS finds the safety arrangements inadequate or unsafe the contractor shall take immediate corrective action as directed by the WAPCOS's representative.

7.42 SERVICE ROAD

The contractor/s shall make his/their arrangements for service roads, paths etc. for carrying his/their tools and plants labour and materials etc. and will also allow the WAPCOS and other Govt. bodies use of such paths and service roads etc. for plying its own vehicles free of cost. The contractor will be deemed to have included the cost of making any service roads, roads or paths etc. that may be required by him/them for plying his/their vehicles for the carriage of his/their men and materials, tools, plants and machinery for successful completion of the work.

Similarly any other feeder road connecting any of the existing roads will be made by the Contractor at his/their own cost including any compensation that may be required

to be paid for the temporary and or private land and without in any way involving the WAPCOS in any dispute for damage and/or compensation.

7.43 SITE CLEARANCE

Before the work is started, the contractor shall clear all the jungle, grass, shrubs, trees etc., to the extent needed for the works and as directed by the Engineer-in-charge. The ground has to be levelled and rolled to achieve desired level of compaction before starting the earthwork. The reference levels have to be taken at initially rolled ground level. These levels will have to be taken at site by the contractor and the WAPCOS representatives.

7.44 SUFFICIENCY OF CONSTRUCTION PLANTS AND EQUIPMENT

It will entirely be the responsibility of the contractor to mobilize sufficient plant and machinery in very good working condition and to the satisfaction of Engineer-in-charge from his own Possession and if not, procure all the machinery, tools and plant including spare parts, fuel, consumable stores and labour that are required for the efficient and methodical execution of the Works. If during the course of execution of works, it is found that the plant and equipment mobilized by the Contractor is inadequate for the timely completion of works, the contractor shall undertake to augment the plant and equipment to the satisfaction of Engineer-in-charge.

The contractor should also make sure that he has ready access to expert manpower to operate the plant and machinery efficiently and effectively and indicate accordingly in his offer. The contractor shall not remove from the site of works any plant and machinery mobilized by him without prior written permission of the Engineer-in-charge during the course of or on Completion of works.

7.45 SECURITY

WAPCOS will request the Government of Himachal Pradesh to extend necessary Security to the project personnel and Contractor personnel. However, Contractor shall make their own security arrangements for security at site for their equipment and personnel.

7.46 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, after approval of WAPCOS, 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.

SL. NO.	ITEMS	APPROVED MAKE
1.	GREY CEMENT	ACC, J.K, BIRLA, ULTRA TECH, JAYPEE, SHREE, AMBUJA, DALMIA
2.	WHITE CEMENT	JK, BIRLA, ACC, JAYPEE, AMBUJA
3.	WALL PUTTY	BIRLA, J.K SRIRAM, JOHNSON
4.	REINFORCEMENT/STRUCTURAL STEEL	SAIL, TATA, RATHI, JINDAL, BHUSHAN, SRMB, JSW
5.	ANTI-TERMITE TREATMENT	PEST CONTROL INDIA LTD, PEST CONTROL INCORPORATED, VAM ORGANIC/ HINDUSTAN INSECTICIDE/BAYER/ICI.
6.	CONCRETE ADDITIVE	Sikka, PIDILITE, FOSROC, BASF
7.	PRELAMINATED FLUSH DOORS/ SHUTTERS	GREEN CLUB, DURIAN, CENTURY, AMULYA, LEGEND, ARCHIDPLY, GREEN PLY
8.	FLUSH DOORS / SHUTTERS	GREEN, DURIAN, CENTURY, AMULYA, LEGEND, ARCHIDPLY, GREEN PLY
9.	PLYWOOD / BLOCK BOARD / SOFT BOARD	GREEN CLUB, CENTURY ARCHITECT PLY, DURO, DURIAN SUMO, AMULYA, LEGEND, ARCHIDPLY, GREENPLY, KANCHAN PLY
10.	PRELAMINATED PARTICLE BOARD	NOVAPAN, GREEN LAM, MERINO, AUSTIN, ARCHID, AMULYA
11.	LAMINATES	CENTURY, DURIAN, GREEN, ROYAL TECH, MERINO, ARCHID, AMULYA
12.	MDF BOARD	DURO, MERINO, GREENLAM, CENTURY, KITPLY, ARCHID, AMULYA
13.	ADHESIVE FOR WOOD WORK	DUNLOP, FEVICOL, PIDILITE.
14.	POLYURETHANE SEALANT	KRYTON, PIDLITE, FAREMATE,
15.	POLYETHELENE BOARD/ BACK UP ROD	SUPREME INDUSTRIES, FINOLEX
16.	ALUMINIUM SECTIONS	JINDAL, HINDALCO, OASIS
17.	STAINLESS STEEL	JINDAL OR EQUIVALENT
18.	STAINLESS STEEL RAILING	OZONE, DORMA, KITCH, VISTA
19.	EXPANSION/ FASTNERS	FISHER, HILTI, KLIMAS
20.	FLOAT GLASS / TOUGHENED GLASS	SAINT GOBAIN, MODIGUARD, ASAHI
21.	CERAMIC TILES	KAJARIA, HR JOHNSON, ORIENTBELL, SOMANY
22.	VITRIFIED TILES	KAJARIA, ORIENT BELL, RAK, SOMANY, VARMORA
23.	EXTERIOR WALL TILES	BELL, UNISTONE, HR JOHNSON

24.	SYNTHETIC ENAMEL PAINTS	BERGER (LUXOL GOLD), ASIAN (APCOLITE), ICI DULUX (GLOSS), SHALIMAR,JSW Paints
25.	OIL BOUND DISTEMPER	SHALIMAR, ASIAN PAINT, BERGER (BISON), NEROLAC,JSW paints
26.	CEMENT BASED PAINT	SHALIMAR, SNOWCEM PLUS, BERGER (DUROCEM EXTRA), ASIAN,NEROLAC, JSW Paints
27.	PLASTIC EMULSION PAINT/ INTERIOR PAINT	OIKOS, SKK, UNISTONE, BERGER, ICI, NEROLAC, ULTRATECH, Asian, JSW paints, Dulux
28.	OTHER PAINTS / PRIMERS	ICI DULUX, ASIAN, BERGER, NEROLAC, JSW paints, Dulux
29.	PAINTS	BERGER, ASIAN PAINTS, ICI, NEROLAC, Asian, JSW paints, Dulux
30.	SURFACE TEXTURE PAINT(EXTERIOR)	OIKOS, SKK, UNISTONE, ULTRATECH
31.	SURFACE TEXTURE PAINT(INTERIOR)	OIKOS, SKK, UNISTONE, ULTRATECH
32.	DOOR / WINDOWS PATCH FITTINGS	DORMA, HETTICH, DOORSET, HAFAL
33.	LOCKS	DOORSET, DORMA, HETTICH, HAFAL
34.	WARDROBE/ CUBBOARDS HANDLES	HETTICH, DORMA, HAFAL, DOORSET
35.	MS PIPE	JINDAL (HISAR), PRAKASH, SURYA, TATA, SAIL,APL Apollo
36.	S.S. HINGES	DORMA, HETTICH, HAFAL
37.	M.S. HINGES	GARG, ISI MARK ANY APPROVED MAKE.
38.	DOOR CLOSER	DORMA, DOORSET, HAFAL, HETTICH
39.	METAL FALSE CEILING (ANTIBACTERIAL / ANTI FUNGAL)	ARMSTONG, CREDENCE, HUNTER DOUGLAS, ANUTONE
40.	SILICON SEALANT	DOW CORNING, GE BAYER, WACKER, DOCONY
41.	PAD LOCKS	HARRISON, LINK, DOORSET
42.	FIRE DOORS	SHAKTI HORMANN, GODREJ, GLOBLE FIRE PROTECTION COMPANY, RADIANT STAFF FIRE DOORS, KITPLY
43.	POLYCARBONATE ROOF SHEETING	GE PLASTIC, DANPALON, POLYGAL, SABIC
44.	FLOOR SPRING	DORMA, HAFAL, HETTICH
45.	CLOUD/SOUNDSCAPE	ARMSTRONG, CREDENCE, DECOSONIC, ANUTONE, WONDERCEIL
46.	ALLUMINIUM COMPOSITE PANEL	ALUCOBOND, ALSTONE, ALSTRONG
47.	ASPHALT EMULSION	STP / KARNAK, CHEMICAL CORPORATION
48.	TILE JOINT FILLER	DURACREATE, ROFF RAINBOW TILE MATE, WINSIL 20 / SILICON SEALANT OF GE BAYER SILICON

49.	RUBBER GASKET	BIS APPROVED QUALITY
50.	POLYURETHANE PAINT	MRF OR EQUIVALENT APPROVED MAKE
51.	WAX POLISH	MEN'SSION, (RECKITT & COLMAN)
52.	MELAMINE	ICI DULUX, ASIAN, MRF
53.	SILICON WATER REPELLENT SOLUTION	GE BAYER, REMMERS, DUPONT
54.	GYPSUM BOARD FALSE CEILING	INDIA GYPSUM, LAFARGE, GYPROC, USG BORAL, AEROLITE
55.	MINERAL FIBRE TILES CEILING	ARMSTRONG, CREDENCE, HUNTER DOUGLAS, LAFARGE
56.	LAMINATED WOODEN FLOORING	PERGO, PARKETT, ARMSTRONG
57.	VENETIAN BLINDS	VISTA, MAC, HUNTER DOUGLAS
58.	PVC FLOORING	ARMSTRONG, FORBO, PARKETT
59.	EXTERIOR WOOD HIGH PRESSURE LAMINATE WALL CLADDING	FUNDERMAX, PRODEMA, REZNOCLAD
60.	WOODEN PANELLING/ACOUSTIC PANELLING	ARMSTRONG, CREDENCE, ANUTONE
61.	CARPET	TUNTEX, ROCKWORTH, INTERFACE
62.	MODULAR FURNITURE	DURIAN, HERMAN MILLER, GODREJ, HNI
63.	GLASS MOSAIC TILES	CORAL, BISAZZA, PAVIT
64.	ACOUSTICAL WALL PANELLING	ARMSTRONG, CREDENCE, ANUTONE
65.	FIRE RATED STEEL DOORS	KUTTY'S, GMP TECHNICAL SOLUTIONS, SHAKTI HORMANN PVT LTD
66.	STRETCH CEILING	NEWMAT, BARRISOL, WONDERCEIL
67.	ALL GRC ITEMS	DALAL TILES, SENEISHA, BIRLA, EVEREST, UNISTONE
68.	ANY OTHER ITEMS	ON APPROVAL OF ARCHITECT / CONSULTANT OR ENGINEER-IN- CHARGE
69.	GREY CEMENT	ACC, J.K, BIRLA; ULTRA TECH,AMBUJA, JAYPEE,
70.	WHITE CEMENT	JK, BIRLA, ACC, JAYPEE, AMBUJA
71.	WALL PUTTY	JK, BIRLA, ACRO, BERGER
72.	REINFORCEMENT/STRUCTURAL STEEL	SAIL, TATA,, JINDAL, BHUSHAN, SRMB
73.	ANTI-TERMITE TREATMENT	PEST CONTROL INDIA LTD, PEST CON INDIA, PEST CONTROL INCORPORATED.
74.	CONCRETE ADDITIVE	Sika, PIDILITE, FOSROC, BASF
75.	PRELAMINATED FLUSH DOORS/ SHUTTERS	GREEN, DURIAN, CENTURY, AMULYA
76.	FLUSH DOORS / SHUTTERS	GREEN CLUB, DURIAN, CENTURY, AMULYA
77.	PLYWOOD / BLOCK BOARD / SOFT BOARD	GREEN CLUB, CENTURY ARCHITECT PLY, DURO, DURIAN SUMO, AMULYA
78.	PRELAMINATED PARTICLE BOARD	NOVAPAN, GREEN LAM, MERINO, AUSTIN, ARCHID, AMULYA
79.	LAMINATES	CENTURY, DURIAN, GREEN, ROYAL TECH, MERINO, ARCHID, AMULYA

7.47 LIST OF APPROVED MAKES FOR ELECTRICAL

Acceptable makes of materials for electrical and fire alarm works to be used in the work are enclosed. In case of non-availability of these makes, after approval of WAPCOS, 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.

SL. NO.	ITEMS	APPROVED MAKE
1.	GI PIPES	JINDAL HISSAR, SURYA, PRAKASH, ATUL, APL Apollo
2.	MS PIPE	TATA, JINDAL, SURYA, PRAKASH,
3.	PVC PIPES/CONDUITS	BEC, AKG, ATUL
4.	COPPER CONDUCTOR PVC INSULATED WIRES	RPG, SKYTONE, HAVELLS, BATRA HENLAY, FINOLEX, RAJDHANI, BONTON
5.	MINIATURE CIRCUIT BREAKERS (C- CURVE) (ISI MARK)	LEGRAND, SIEMENS, HAGER,, ABB
6.	EARTH LEAKAGE CIRCUIT BREAKERS	LEGRAND, SIEMENS, HAGER, , ABB
7.	MOLDED CASE CIRCUIT BREAKER (WITH ROTARY HANDLE)	L&T (D SINE), SCHNEIDER ELECTRIC (NSX), LEGRAND (DPX), SIEMENS (3VL),, ABB, GE
8.	MCB DISTRIBUTION BOARDS	LEGRAND, SIEMENS ELECTRIC (MG), , HAVELLS, ABB
9.	HRC FUSES	L&T, SIEMENS, LEGRAND, ABB
10.	AIR CIRCUIT BREAKERS	L&T , SIEMENS ELECTRIC (3WA), ABB (E MAX2), LEGRAND (DMX3), Schneider (MTZ)
11.	PROTECTIVE RELAYS/IDMT RELAYS	ALSTOM, ABB, SIEMENS
12.	ON - LOAD SWITCH ISOLATOR	ABB, L&T, SIEMENS
13.	APFC RELAYS (MICROPROCESSOR)	L&T, SCHNEIDER, SIEMENS, NEPTUNE-DUCATI, ABB
14.	MV SWITCHBOARDS A) MAIN LT PANELS & HT PANELS	ABB, L&T, SCHNEIDER, Siemens
15.	MV CONTACTORS, TIMER (SOLID STAT)	L&T, SIEMENS, ABB,
16.	1100 VOLTS GRADE CABLES/XLPE CABLE	LAPP, RPG, SKYTONE, BATRA HENLAY, FINOLEX,
17.	1100 VOLTS GRADE PVC CONTROL CABLES/XLPE CABLE	LAPP, RPG, SKYTONE, BATRA HENLAY, FINOLEX,
18.	CABLE LUGS (TINNED COPPER)	DOWELLS, JAINSON, RALLISON
19.	CABLE COMPRESSION GLANDS	PEECO, COMET, TRINITY TOUCH
20.	11KV XLPE CABLES	LAPP, FINOLEX, SKYTONE, RALLISON,
21.	11 KV CABLE JOINTS (HEAT SHRINKABLE)	DENSON, RAYCHEM
22.	11 KV VACUUM CIRCUIT BREAKERS	SIEMENS, L&T, SCHINDER, ABB
23.	HT RELAYS	SIEMENS, ALSTOM, L&T, ABB

24.	KV RING MAIN UNIT	SIEMENS, L&T, SCHINDER,ABB
25.	CAPACITOR	L&T, SIEMENS, SCHINDER, Havells, ABB
26.	CAST RESIN CURRENT TRANSFORMER	AE, KAPPA, GILBERT, MAXWELL
27.	METERS DIGITAL	RISHAB, AE, SIEMENS,C&S, CONZERV, TRINITY,ABB
28.	TRIVECTOR METER	L&T, Secure
29.	HT-CT, PT, METER	AE, KAPPA, SIEMENS,
30.	SELECTOR SWITCHES	KAYCEE, L&T SAZLER,ABB
31.	INDICATION LAMP (LED TYPE)	L&T, SIEMENS, ABB
32.	CABLE TRAY	SLOTCO, PILCO, RICCO, PRECISION SYSTEM CONTROL
33.	GANG OPERATED AIR BREAKER SWITCH UNIT	PACTIL, MEI
34.	SINGLE POLE DROP OUT FUSES	PACTIL, MEI
35.	11 KV PALLET TYPE LIGHTING ACCESSORIES	WSI, OVALUM, ELPRO, BHEL
36.	11 KV INSULATOR	WSI, OVALUM, ELPRO, BHEL
37.	TIME SWITCHES	L&T, SIEMENS, ABB, Schneider
38.	CABLE JOINT	RAYCHEM, DENSON
39.	INDOOR TYPE ON LOAD AIR BREAK SWITCH	MEI, ISOTECH INDIA PVT LTD (GURGAON), HPL,ABB
40.	RUBBER FLOOR MAT 11 KV (ISI) (ELASTOMETRIC)	SUNTAX, TYCOON
41.	SYNTHETIC MAT CONFIRMING TO IS: 15652 (2MM,2.5MM&3.0MM THICK ISI MARKED TYPE TEST APPROVAL FROM ERDA)	ELECTROMAT, TYCON, SAVEBOTT
42.	CHANGEOVER SWITCH	L&T, SCHNEIDER,ABB
43.	AUTO TRANSFER SWITCH	GE, EMERSON ,ABB
44.	SANDWITCH BUS DUCT	L&T, ZUCCHINI (LEGRAND), CONTROL & SWITCHGEAR
45.	AIR INSULATED BUS DUCT	ZUKINI – LEGRAND, SIEMENS – SIVACON,
46.	HDPE PIPE	DURA-LINE, RELIANCE
47.	EXTERNAL LIGHTING POLES	BAJAJ, HI-LITE
48.	EXTERNAL LIGHTING FIXTURE	WIPRO, PHILIPS, BAJAJ, Havells

SL. NO.	ITEMS	APPROVED MAKE
A.	INTERNAL ELECTRICAL WORKS	
1.	MS BLACK ENAMELED/ GALVANIZED ERW CONDUITS.	AKG, ATUL PIPE, RMCON
2.	M. S. CONDUIT ACCESSORIES	BEC, ATUL PIPE, AKG
3.	GI PIPES	RCON, AKG, BEC
4.	PVC CONDUIT & ACCESSORIES	BEC, AKG, ATUL PIPES
5.	COPPER CONDUCTOR PVC INSULATED WIRES	LAPP, RPG, SKYTONE, BATRA HENLAY, FINOLEX, KABEL, KEI, ANCHOR, HAVELLS
6.	MODULAR SWITCHES, SOCKET OUTLETS & WIRING ACCESSORIES WITH MOLDED COVER	LEGRAND, SIEMENS, HONEYWELL,,ABB

7.	HEAVY DUTY METAL CLAD SOCKET OUTLETS WITH MCB IN MS HOUSING	LEGRAND, SIEMENS, HAGER, C&S
8.	WEATHER PROOF SOCKET OUTLETS WITH MCB	HAGER, LEGRAND, SIEMENS, ,ABB
9.	MINIATURE CIRCUIT BREAKER	HAGER, LEGRAND, SIEMENS, ,ABB
10	EARTH LEAKAGE CIRCUIT BREAKER	HAGER, LEGRAND, SIEMENS,ABB
11	TIMERS & CONTACTORS TO BE MOUNTED IN DB	SIEMENS, HAGER, LEGRAND,ABB
12	MCB DISTRIBUTION BOARDS IN SHEET STEEL HOUSING (DOUBLE DOOR)	SIEMENS, HAGER, LEGRAND,ABB
13	HDPE CONDUITS & ACCESSORIES	DURALINE, RELIANCE
B.	DISTRIBUTION	
1.	KWH METERS (ELECTRONIC DIGITAL TYPE)	T, L&T, SECURE,ABB
2.	SANDWITCH RISING MAIN	ZUKINI – LEGRAND, SIEMENS – SIVACON, SCHNEIDER, Havells
3.	SINGLE PHASE PREVENTER	L&T, MINILEC, LEGRAND,ABB
4.	MOTOR PROTECTION CIRCUIT BREAKERS	LEGRAND, SIEMENS, L&T, ABB
C.	LOW TENSION SYSTEM	
1.	TELEPHONE WIRES	FINOLEX, BELDEN, POLYCAB, , KABEL, HAVELLS
2.	TELEPHONE TAG BLOCK	KRONE, POUYET, TVS
3.	TV CO-AXIAL CABLE	LAPP, RPG, SKYTONE, HENLAY, Havells
4.	CAT 6 CABLE	BELDEN, PANDUIT, SCHENIEDER, Havells
D.	CABLES & ACCESSORIES	
1.	1100 VOLTS GRADE CABLES	LAPP, RPG, ,Havells
2.	CABLE LUGS	DOWELLS, JAINSON,
3.	CABLE COMPRESSION GLANDS	PEECO, COMET,
4.	CABLE TRAYS/ CABLE LADDERS	SLOTCO, PILCO, RICCO
E.	METERING & PROTECTION	
1.	CAST RESIN CURRENT TRANSFORMER	GILBERT MAXWELL, KAPPA, , ADVANCE
2.	METER (ELECTRONIC DIGITAL/LCD)	L&T RISHAB, SIEMENS,Schneider , ABB
3.	SELECTOR SWITCHES	L&T SALZER, KAYCEE, C&S,ABB
4.	INDICATION LAMP (LED TYPE)	L&T, , SIEMENS, C&S
5.	ENERGY MONITOR/TRIVECTOR METER	NEPTUNE-DUCATI, L&T, TRINITY, ABB
6.	VOLTMETER, AMMETER	L&T RISHAB, SIEMENS, AE, ABB
F.	LV SYSTEM	
1.	FIRE DETECTION SYSTEM (COMPLETE SYSTEM)	TYCO(SIMPLEX)/SIEMENS (CERBEROUS PRO)
2.	PUBLIC ADDRESS SYSTEM- SPEAKER, HOOTER, MIKE, AMPLIFIER, ETC.	JBL/ MARTIN AUDIO/BOSE
3.	CCTV	AMERICAN DYNAMICS / DSC/PELCO/SIEMENS
4.	FIRE SURVIVAL CABLES	HENLAY/ LAPP/ FINOLEX
G.	MISCELLANEOUS	
1.	INVERTOR	SU-KAM, LUMINOUS, /POWER TRON, BPE/MICROTEK
2.	CEILING FANS	CROMPTON, HAVELS,
3.	EXHAUST FAN	ALSTOM, CROMPTON GREAVES,

		HAVELS, POLYCAB
4.	LAMPS	
	A) FLUORESCENT LAMP	WIPRO, PHILIPS, REGENT, POLYCAB, Havells
	B) COMPACT FLUORESCENT LAMPS	REGENT, WIPRO, PHILIPS, Havells
5.	LAMINATED SHEET	HYLAM, FORMIER
6.	SPLITTERS FOR SMATV SYSTEM	NETGEAR, CATVISION
7.	XLPE L.T. CABLE, 1.1 KV GRADE (FRLS)	LAPP, RPG, SKYTONE, HENLAY, POLYCAB, Havells
8.	LIGHT FIXTURES	WIPRO, POLYCAB, PHILIPS, Havells
9.	UPS	DELTA, EMERSON, APC
10	CVT	LOGICSTAT, BLUEBIRD, SELVON, MAX POWER
11	AVIATION OBSTRUCTION LIGHT (LED TYPE)	PHILIPS, WIPRO
12	EXCHANGE/CONSOLE PANEL	TATA TELECOM, PANASONIC, MATRIX
13	HANDSET	TATA PHONE, BEETEL, PANASONIC, SIEMENS
14	RUBBER MATS	SYNTAX, TYCOON (ISI), ELASTOMERIC OR EQUIVALENT
15	TAPE OFF	CAT VISION, SHYAM
16	PVC PIPE	SUPREME, FINOLEX, ATUL
17	CHANGEOVER SWITCH	L&T, SCHNEIDER, havells
18	SERVO	FPPL TRANSFORMERS
19	LIFT	SCHINDLER, OTIS, KONE, MITSUBISHI, JHONSON, ThyssenKrupp
20	DG SETS	CATEPILLAR, Mitsubishi, Yamaha, Mahindra, Honda, KIRLOSKAR, CUMMINS, STERLING

7.48 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, after approval of WAPCOS, 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.

SL. NO.	ITEMS	MANUFACTURERS NAME
1.	VITREOUS CHINA AND FIRECLAY SANITARYWARE WITH COVER	JAQUAR ROCA / KOHLER / CERA/GROHE
2.	STAINLESS STEEL SINKS	JAYNA/ PARRYWARE/ NEELKANTH/ NIRALI/ CERA
3.	C.P. FITTINGS & ACCESSORIES	JAQUAR/KOHLER//ROCA/
4.	C.P. WASTE, SPREADERS, URINALFLUSH PIPES	JAQUAR/ ROCA / CERA/KOHLER/GROHE
5.	SS COCKROACH TRAPS, GRATINGS FOR	CHILLY/ JAYNA/ CAMRY

	FLOOR DRAINS, FLOOR TRAPS AND RAIN WATER GRATINGS	
6.	SOIL, WASTE & FITTINGS (a) CENTRIFUGALLY CAST SPUN CAST IRON PIPES (IS:3989)	SKF/ NECO/BIC/ PRINCE/ SUPREME/ KISSANSFMC
7.	RCC PIPES	PRAGATI / JAIN SPUN/ ISI MARKS OF REPUTED COMPANY
8.	PVC/ CPVC PIPES & FITTINGS	ASTRAL/ ASHIRVAD/ PRINCE/ FINOLEX /PRAKASH/ SUPREME/SFMC
9.	HAND DRIER	JAQUAR/ HINDWARE/EURONICS
10.	BALL VALVES	ZOLOTO/ LEADER/ AIP/ SANT / NEU-G
11.	RAIN WATER PIPES & FITTINGS UPVC PIPES AND FITTINGS	PRINCE/ SUPREME/ PRAKASH/ FINOLEX/ ORI-PLASTSFMC
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.	VITREOUS CHINA AND FIRECLAY SANITARYWARE WITH COVER	JAQUAR/ ROCA / KOHLER / CERA/GROHE
15.	WATER METRES	CAPSTAN/KRANTI/KAYCEE/AQUAMET
16.	BALL COCKS	GPA/ DRP/ SANT/ L & K
17.	STONEWARE PIPES & GULLY TRAPS	PERFECT/ BURN/ RK/ SAURAKHI / MOU
18.	C.I. MANHOLES COVERS AND FRAMES	NECO/ RIF/ BIC/SKF/BIC/ RPMF
19.	RCC MANHOLE COVERS & FRAMES	KK/ PRAKASH/ JSP
20.	FASTNERS	HILTI/ INTELLOTEC/TRUCTEK/FISHER
21.	WATER HEATER	HAVELLS/BAJAJ/CROMPTONGREAVES
22.	HOT WATER NEOPRENE INSULATION	KAIFLEX
23.	GATE/ FULLLL WAY VALVES ANDGLOBE VALVES	LEADER/ZOLOTO/SANT
24.	AIR RELEASE VALVES	SANT/ LEADER/DANFOSS/ ZOLOTO
25.	PIPECOAT	IWL LIMITED/ PYPKOTE
26.	C. I. PIPE	RIF, NECO, SKF, HEPCO, BIC
27.	G. I. PIPE	JINDAL, TATA, SWASTIK, APL APOLLO, SURYA PRAKASH
28.	G.I. FITTINGS (MALLEABLE CAST IRON)	JINDAL / SURYA PRAKASH /DRP-M/ ZOLOTO-M/ UNIK/APL Apollo
29.	M.S. FITTINGS (FORGED)	DRP/ VS
30.	OVERHEAD WATER TANK	SINTEX, SHEETAL, EUREWELL/APL Apollo
31.	WATER COOLER	BLUE STAR/VOLTAS/GODREJ
32.	R.O WATER PURIFIER	KENT/ EUREKA FORBES/ ION EXCHANGE
33.	WATER TREATMENT PLANT	ION EXCHANGE/ THERMAX/ BRISANZIA
34.	HDPE PIPE	PRINCE/ SUPREME/ PRAKASH/SFMC
35.	DI PIPE	JINDAL/ PRINCE/ SUPREME/ PRAKASH/ FINOLEX/ JAI BALAJISFMC
36.	DI PIPE FITTINGS	JINDAL/ PRINCE/ SUPREME/ PRAKASH/ FINOLEX/ JAI BALAJI/SFMC

SECTION– VIII

FINANCIAL BID

SECTION 8 FINANCIAL BID

8.1 FORM OF QUOTATION

**Quotation for Civil works of setting up Farm for the “Conservation and
Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District
Sirmour, Himachal Pradesh**

To,
The Sr. Executive Director (INFS-II)
WAPCOS Ltd.
76-C, Institutional Area, Sector-18
Gurgaon, Haryana – 122 015.
Tel – 0124-2399431 / 2399427
Fax No. 2397392

I/We the undersigned, having carefully examined and understood the documents on which quotation to be based, hereby agree to carry out the aforesaid construction for the following work on percentage rate basis described in the Scheduled of work, in conformity with the specifications and terms and condition as specified in the document. Total price for carrying out the Civil works of setting up Farm for the “Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh is,

Rupees _____
(Amount in Words and Figures)

This price will remain valid for 120 (One hundred and twenty) days from the date of submission of bid. Unless and until a formal contract is prepared and executed, this quotation, together with your acceptance thereof, shall constitute a binding contract between us.

I/We undersigned, that you are not bound to accept the lowest or any quotation you may receive.

Signed this _____ day _____ 2024

Signature and seal of bidder or Authorized representative

Name of firm :
Address of firm :
Telephone No. :
Fax No. :
E-mail :

8.2 SUMMARY OF COST

SUMMARY OF COST FOR PERCENTAGE RATE TENDER

Description	Percentage Quoted (Excess / Less / at par)	Total Amount as per % Quoted (Excluding GST) (Rs.)
Civil works of setting up Farm for the "Conservation and Propagation of Himachali Pahari Cattle of Himachal Pradesh at Bagthan, District Sirmour, Himachal Pradesh	DO NOT FILL PERCENTAGE HERE	DO NOT FILL COST HERE
Total amount in words: DO NOT FILL COST HERE AS IT IS TECHNICAL PROPOSAL FILE		

Note:-

- The Performa for filling the percentage rate is given in Microsoft excel sheet. Bidder shall fill the percentage only up to two decimal place in soft format. The bidder will upload same filled percentage quote in soft Microsoft Excel copy during uploading of financial bid.
- The Bidder shall quote Percentage up to two decimal only in bill of quantity of tender.
- Prices quoted by the Bidder shall include all Materials, Tools & Plant, labour, supervision, profit; other levies together with all general risks, liabilities and obligations set out or implied in the contract, applicable Labour Cess, cost of insurance to this contract, all applicable tax liabilities like Income Tax & Surcharges, etc. Any other taxes /cess as per Government directives shall be deducted from each bill paid to the Contractor, from time to time. Prices quoted by the Bidder shall be exclusive of GST. 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 Contractor shall issue Tax Invoices to the Employer showing (i) Basic amount (ii) GST amount separately in each bill. 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.

Date:

Signature of bidder

Place:

Name and Stamp

BILL OF QUANTITIES

PROJECT :- CONSERVATION AND PROPAGATION OF HIMACHALI PAHARI CATTLE, AT BAGTHAN, DISTRICT SIRMOUR, H.P.							
Abstract of Cost - Civil works + Electrical works + Plumbing Works							
Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
A		<u>CIVIL WORKS</u>					
	2.0	<u>EARTH WORKS</u>					
1	2.6	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 getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.					
i	2.6.1	All kinds of soil.	Cum	1818.63	129.75	235967.24	
2	2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :					
a	2.10.1	All kinds of soil.					
i	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	Rmt	54.90	226.09	12412.34	
3	2.25	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	1451.66	123.27	178946.13	
4	1.1.2	Carriage of Earth by mechanical transport including loading, unloading and Stacking including royalty & carriage up to 5 KM complete.	Cum	366.97	151.05	55430.82	
5	2.26	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.					
i	2.26.1	All kinds of soil	Cum	0.00	50.99	0.00	
6	2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	121.04	1861.51	225317.17	
7	2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	Sqm	2662.03	7.13	18980.27	
8	2.34	Supplying chemical emulsion in sealed containers including delivery as specified.					
i	2.34.1	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	Ltr	240.00	198.86	47726.40	
9	2.35	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :					
a)	2.35.3	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:					
i	2.35.3.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	Sqm	1804.90	132.57	239275.59	
	4.0	<u>CONCRETE WORKS</u>					
10	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
i	4.1.8	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	281.79	4906.07	1382481.47	
11	4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing:					
i	4.2.3	1:2:4 (1 Cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	Cum	5.56	7036.63	39123.66	
12	4.3	Centering and shuttering including strutting, propping etc. and removal of form work for :					
i	4.3.1	Foundations, footings, bases for columns	Sqm	223.06	214.30	47801.76	
13	4.10	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand(zone-III) : 4 graded stone aggregate 20mm nominal size).	Sqm	110.43	281.38	31072.79	
14	4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	per 50kg cement	29.15	55.99	1632.11	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
15	4.13	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with apiece of cloth lightly soaked in kerosene oil.	Sqm	110.43	94.90	10479.81	
16	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	Sqm	253.22	474.10	120051.60	
	5.0	REINFORCED CEMENT CONCRETE WORK					
17	5.9	Centering and shuttering including strutting, propping etc. and removal of form for :					
i	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	Sqm	815.25	214.30	174708.08	
ii	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	Sqm	374.43	407.07	152419.22	
iii	5.9.3	Suspended floors, roofs, landings, balconies and access platform.	Sqm	405.14	463.66	187847.21	
iv	5.9.4	Shelves (Cast in situ)	Sqm	5.76	463.66	2670.68	
v	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	611.55	383.31	234413.23	
vii	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	312.27	509.65	159148.41	
viii	5.9.7	Stairs, (excluding landings) except spiral-staircases.	Sqm	28.41	439.99	12500.12	
viii	5.9.15	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	Sqm	15.35	214.30	3289.51	
ix	5.9.16	Edges of slabs and breaks in floors and walls					
	5.9.16.1	Under 20 cm wide	Rmt	183.40	130.20	23878.68	
x	5.9.19	Weather shade, Chajjas, corbels etc., including edges.	Sqm	62.05	550.04	34129.98	
18	5.11	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured)					
i	5.11.1	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	Sqm	351.19	183.02	64274.79	
19	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					
i	5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	45361.73	76.09	3451574.04	
20	5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.					
i	5.22A.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	18718.83	76.09	1424315.77	
21	5.30	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	Rmt	100.93	35.30	3562.83	
22	5.33	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including 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 Engineer-in-charge.					
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).					
i	5.33.1	All works upto plinth level.	Cum	504.27	6866.14	3462388.42	
ii	5.33.2	All works above plinth level upto floor V level.	Cum	158.39	7665.14	1214081.52	
23	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	49.64	666.87	33104.76	
	6.0	BRICK WORK					
24	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					
i	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	45.81	5256.71	240809.89	
25	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :					
i	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	184.63	6102.88	1126774.73	
26	6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
i	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	602.98	740.24	446349.92	
27	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry	Sqm	602.98	79.36	47852.49	
28	6.44	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	Rmt	48.00	42.67	2048.16	
	8.0	MARBLE & GRANITE WORKS					
29	8.2	Providing and fixing 18mm thick gang saw cut (premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all levels.					
a)	8.2.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble					
i	8.2.1.1	Area of slab upto 0.50 sqm	Sqm	5.14	2159.13	11097.93	
b)	8.2.2	Granite stone slab colour black, Cherry/Ruby red					
i	8.2.2.1	Area of slab upto 0.50 sqm	Sqm	24.15	3584.80	86572.92	
ii	8.2.2.2	Area of slab over 0.50 Sqm.(For Counter)	Sqm	5.76	3523.32	20294.32	
30	8.4	Extra for fixing marble / granite stone over and above corresponding basic item, in facia and drops of width upto 150mm with epoxy resin baesd adhesive including cleaning etc. complete.	Rmt	241.96	296.83	71820.99	
31	8.5	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble /Granite/Stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edge etc. complete.	Each	9.00	462.77	4164.93	
32	8.31	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 Engineerin- 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	138.79	851.18	118135.27	
	9.0	WOOD & PVC WORK					
33	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).					
i	9.1.1	Second class teak wood	Cum	0.88	119423.08	105092.31	
34	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:					
i	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	42.00	1678.69	70504.98	
35	9.23	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	42.00	397.42	16691.64	
36	9.40	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete :					
a)	9.40.1	2nd class teak wood					
i	9.40.1.1	50x12 mm	Rmt	108.20	144.65	15651.13	
37	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.					
i	9.48.1	Fixed to steel windows by welding	kg	358.20	127.92	45820.94	
38	9.83	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	Each	24.00	953.20	22876.80	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
39	9.96	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :					
i	9.96.1	300x16 mm	Each	8.00	237.22	1897.76	
40	9.97	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
i	9.97.1	300x10 mm	Each	48.00	111.34	5344.32	
ii	9.97.4	150x10 mm	Each	68.00	71.48	4860.64	
41	9.98	Providing and fixing aluminium pull bolt lock, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed of required colour and shade, with necessary screws bolts, nut and washers etc. complete.	Each	2.00	75.05	150.10	
42	9.100	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
i	9.100.1	125mm	Each	48.00	56.98	2735.04	
ii	9.100.2	100mm	Each	68.00	50.25	3417.00	
43	9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.					
i	9.101.2	Twin rubber stopper	Each	24.00	60.40	1449.60	
44	9.113	Providing and fixing bright finished 100 mm mortice lock with 6 levers without pair of handles of approved quality for aluminium door, with necessary screws etc complete as per direction of Engineerin-charge.	Each	11.00	585.64	6442.04	
45	9.127	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.					
i	9.127.2	1.0 mm thick	Sqm	84.00	644.45	54133.80	
	10.0	<u>STEEL WORK</u>					
46	10.4	Providing and fixing 1 mm thick M.S. sheet slidingshutters, with frame and diagonal braces of 40x40x6 mm angle iron, 3 mm M.S. gusset plates at the junctions and corners, 25 mm dia pulley, 40x40x6 mm angle and Tiron guide at the top and bottom respectively, including applying a priming coat of approved steel primer	Sqm	31.50	4081.48	128566.62	
47	10.11	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D,F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).					
i	10.11.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Kg	143.60	135.34	19434.82	
48	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.					
i	10.16.1	Hot finished welded type tubes	Kg	47445.20	120.25	5705285.30	
49	10.20	Providing and fixing bolts including nuts and washers complete.	Kg	2498.00	99.90	249550.20	
50	10.25	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required					
i	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kg	700.00	106.38	74466.00	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
51	10.27	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.					
i	10.27.1	10 x 60 mm	Each	53.00	73.91	3917.23	
52	10.28	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-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	480.00	524.00	251520.00	
53	10.30	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :					
i	10.30.1	4.0 mm thick glass panes	Sqm	14.36	839.15	12050.19	
54	19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	18.00	342.22	6159.96	
55	19.19.2	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality M D - 10					
i	19.19.2.2	Circular shape 500 mm internal diameter	Each	4.00	1000.53	4002.12	
	11.0	FLOORING WORK					
56	11.7	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete.	Cum	161.51	6219.02	1004433.92	
57	11.8	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	Sqm	1615.10	36.73	59322.62	
58	11.6	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.					
i	11.6.1	18 mm thick	Sqm	22.39	353.81	7921.81	
59	11.20	Chequerred precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand)					
i	11.20.1	Light shade pigment using white cement	Sqm	22.84	1037.26	23691.02	
60	11.24	Extra for pre finished nosing to treads of steps of marble / granite stone.	Rmt	55.29	310.34	17158.70	
61	11.25	Extra for marble / granite stone flooring in treads of steps and risers using single length up to 2.00 metre.	Sqm	26.57	356.63	9475.66	
62	11.26	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) :					
i	11.26.1	25 mm thick	Sqm	18.98	1203.65	22845.28	
63	11.27	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	2.60	1267.26	3294.88	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
64	11.40	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except 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 cement and matching pigments etc., complete.	Sqm	50.83	1020.63	51878.62	
65	11.41	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete					
i	11.41.2	Size of Tile 600 x 600 mm	Sqm	176.02	1347.21	237135.90	
66	11.56	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.					
i	11.56.1	Polished Granite stone slab colour of Black, Cherry/Ruby Red or equivalent	Sqm	147.92	3296.34	487594.61	
	12.0	ROOFING					
67	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :					
i	12.21.1	In 75x75 mm deep chase	Rmt	70.16	159.30	11176.49	
68	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	3.00	207.42	622.26	
69	12.50	Providing and fixing pre-coated 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 120grams 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 15-18microns. 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	1186.07	586.58	695724.94	
70	12.51	Providing and fixing pre-coated 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, 5-7microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :					
i	12.51.1	Ridges plain (500 - 600mm)	Rmt	115.65	373.31	43173.30	
ii	12.51.6	Gutter (600 mm over all girth)	Rmt	231.27	881.67	203903.82	
	13.0	FINISHING WORK					
71	13.4	12 mm cement plaster of mix :					
i	13.4.2	1:6 (1 cement: 6 coarse sand)	Sqm	832.25	167.82	139668.20	
72	13.5	15 mm cement plaster on rough side of single or half brick wall of mix :					
i	13.5.2	1:6 (1 cement: 6 coarse sand)	Sqm	645.57	194.50	125563.37	
73	13.12	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.	Sqm	1507.27	271.48	409193.66	
74	13.16	6 mm cement plaster of mix :					
i	13.16.1	1:3 (1 cement: 3 fine sand)	Sqm	414.32	140.94	58394.26	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
75	13.21	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	per bag of 50KG Cement Used in Mix	521.81	59.16	30870.28	
76	13.22	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Sqm	55.49	43.07	2389.95	
77	13.26	Providing and applying plaster of paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	Sqm	414.32	134.55	55746.76	
78	13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :					
i	13.41.1	New work (two or more coats) over and including water thinnable priming coat with cement primer	Sqm	1705.46	95.89	163536.56	
79	13.44	Finishing walls with water proofing cement paint of required shade :					
i	13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	495.65	60.59	30031.43	
80	13.45	Finishing walls with textured exterior paint of required shade :					
i	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	1013.33	194.11	196697.49	
81	13.50	Applying priming coat:					
i	13.50.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	Sqm	27.59	38.56	1063.87	
82	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :					
i	13.61.1	Two or more coats on new work	Sqm	5169.28	81.58	421709.86	
83	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	1291.14	84.26	108791.46	
	15.0	<u>DISMANTLING AND DEMOLISHING</u>					
84	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.					
i	15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	Cum	21.94	612.91	13447.25	
85	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	Cum	28.21	1450.82	40927.63	
86	15.4	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.	Cum	25.00	1295.87	32396.75	
87	15.5	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer- in-charge.	Sqm	75.00	496.03	37202.25	
88	15.6	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	2128.40	3.91	8322.04	
89	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.					
i	15.7.4	In cement mortar	Cum	20.00	839.54	16790.80	
90	15.9	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :					
i	15.9.2	In cement mortar	Cum	16.80	1001.72	16828.90	
91	15.14	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead :					
i	15.14.1	Of sectional area 40 square centimetres and above	Cum	20.00	1877.65	37553.00	
92	15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	kg	1840.64	2.33	4288.70	
93	15.31	Dismantling tiled roofing with battens, boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	Sqm	171.00	86.29	14755.59	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
94	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cum	131.95	140.59	18550.85	
	21.0	ALUMINIUM WORK					
95	21.1	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) :					
a)	21.1.1	For fixed portion					
i	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	311.25	416.28	129567.15	
b)	21.1.2	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)					
i	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	373.50	477.62	178391.07	
96	21.3	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):					
i	21.3.1	With float glass panes of 4.0 mm thickness (weight not less than 10 kg/ sqm)	Sqm	35.82	824.69	29540.40	
97	21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-incharge complete.					
i	21.8.1	Upto 5mm depth and 5 mm width	Rmt	124.50	78.66	9793.17	
	22.0	WATER PROOFING					
98	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. (The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.)	Sqm	18.54	299.70	5556.44	
99	22.7	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: (a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
		(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test."All above operations to be done in order and as directed and specified by the Engineer-in-Charge :					
i	22.7.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	Sqm	173.75	1075.88	186934.15	
100	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 ACI-212-3R-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.					
i	22.23.1	For vertical surface two coats @ 0.70 kg per sqm	Sqm	202.40	479.65	97081.16	
ii	22.23.2	For horizontal surface one coat @1.10 kg per sqm	Sqm	91.24	369.70	33731.43	
101	22.26	Providing and applying of swellable type water stop tape, 19mm x 25mm thick in linear meter (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running meter. Over the primed surface swellable type water stop tape shall be placed. 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.	Rmt	84.38	546.72	46132.23	
B		<u>PLUMBING WORKS</u>					
		<u>SANITARY INSTALLATIONS</u>					
102	17.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :					
	17.2.1	W.C. pan with ISI marked white solid plastic seat and lid	Each	9.00	4287.26	38585.34	
103	17.7	Providing and fixing wash basin with C.I.brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls where required :					
	17.7.2	White vitreous china flat back wash basin size 630 x 450 mm with a single 15 mm C.P. brass pillar tap.	Each	9.00	2307.44	20766.96	
	17.7.7	White Vitreous China Flat back wash basin size 450 x 300 mm with single 15mm C.P. brass pillar tap	Each	0.00	1757.70	0.00	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
104	8.10	Providing & fixing stone slab table rubbed, edges rounded and polished of size 75 X 50cm deep and 1.8 cm thick fixed in urinal patitions by cutting chase of appropriate width with chase cutter and embedding the stone in chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregste 6mm nominal size) as per Engineer-in-charge and finished smooth					
	8.10.1	White Agaria Marble Stone	sqm	2.00	3185.00	6370.00	
105	17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	2.00	6514.71	13029.42	
106	17.10	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :					
	17.10.1	Kitchen sink with drain board					
	17.10.1.3	510X1040mm bowl depth 200mm.	Each	0.00	4986.51	0.00	
	17.10.2	Kitchen sink without drain board					
	17.10.2.1	610x510 mm bowl depth 200 mm	Each	1.00	3228.72	3228.72	
107	17.28	Providing & fixing PVC waste pipe for sink including PVC waste fitting Complete					
	17.28.2	Flexible Pipe					
	17.28.2.1	32 mm Dia	Each	0.00	100.10	0.00	
	17.28.2.2	40 mm Dia	Each	2.00	100.10	200.20	
108	17.32	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :					
	17.32.2	Rectangular shape 453x357 mm	Each	9.00	872.36	7851.24	
109	18.51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.					
	18.51.1	15mm nominal bore	Each	2.00	546.87	1093.74	
110	17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink.					
	17.70.2	Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms.(sink & urinal)	Each	1.00	345.14	345.14	
111	17.71	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour weighing not less than 105 gms.	Each	9.00	156.98	1412.82	
112	17.72	Providing & fixing PTMT towel ring trapezoidal shape 215 mm long 200 mm wide with minimum distance of 37 mm from wall face with concealed fittings arrangement of approved quality and colour weighing not less than 88 gms	Each	9.00	225.94	2033.46	
113	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931					
	18.49.1	15mm nominal bore	Each	9.00	414.80	3733.20	
114	18.53	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS 8931.					
	18.53.1	15 mm nominal bore	Each	22.00	526.73	11588.06	
115	17.34	Providing and fixing toilet paper holder :					
	17.34.1	C.P. brass	Each	9.00	474.99	4274.91	
116	MR	Providing and fixing C.P. brass health faucet with 8mm dia 1m long PVC tube and wall hook complete in all respects. all complete as directed by Engineer-in-charge.					
		Make Jaquar, Model No. ALD-563	Each	9.00	2250.60		20255.40
117	MR	Providing, Fixing, testing and commissioning of 15 mm dia C.P. brass 2 way bib cock with C.P. wall flange of approved quality and making good.					
		Make Jaquar, Model No. FLR-5041N	Each	9.00	1507.20		13564.80
118	MR	Providing, Fixing, testing and commissioning of C.P. brass wall / counter mounted sink mixer with C.P. wall flange, overhead swinging spout complete as required and making good.	No.	1.00	4329.70		4329.70
		Make Jaquar, Model No. FLR-5165					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
119	MR	Providing and fixing solid state, no touch operting, fully hygienic hand drier of approved shade with single blower , with time delay, summer & winter control, music while drying, volume ON/OFF controls including providing necessary brackets, cable from drier to Plug, Plug top key and lock etc, complete as required.	Each	4.00	6571.40		26285.60
120	MR	Providing & fixing C.P. brass twin coat hook with PVC rawl plug & C.P. brass screw complete as required.	Each	4.00	310.90		1243.60
121	MR	Providing & fixing horizontal/vertical storage type water heater of approved shade with copper container with multi-function safety valve for high pressure operation without additional pressure reducing valve, glasswool insulation, stove enamelled M.S jacket, thermostatically controlled inner heater with pilot neon lamps, angle valve on inlet connection, 15mm dia C.P flexible connection pipe in inlet & outlet suitable for working pressure of 5 kg/sqcm complete as required.					
		Capacity 15 litres	No.	2.00	5409.90		10819.80
		Make A.O. Smith, price should not be less than Rs. 6500, Model as per engineer in charge.					
122	MR	Providing & Fixing of Grab bar 600 mm of non slipping grip as per standard specification of use in disabled toilet complete with brackets suitable for wall installation as per approved sample complete in all respect. (Make-Hindware, Parryware, Cera)	Each	2.00	4492.30		8984.60
123	MR	Providing and Fixing SS Swing grab bar , fixed to PVC cleats with C.P. brass screws wherever required with approved make & quality and as per the directions and to the satisfaction of Engineer-in-charge. (Make-Hindware, Parryware, Cera)	Each	2.00	4503.90		9007.80
		INTERNAL DRAINAGE INSTALLATIONS					
124	17.60.	Providing and fixing cast iron trap of self cleansing design with cast iron screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors.					
	17.60.1.3	100 mm inlet and 100 mm outlet Hubless centrifugally cast iron pipes epoxy coated inside & outside IS : 15905	Each	10.00	751.13	7511.30	
	17.60.2.3	100 mm inlet and 75 mm outlet Hubless centrifugally cast iron pipes epoxy coated inside & outside IS : 15905	Each	2.00	545.83	1091.66	
125	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	3.00	207.42	622.26	
126	17.35	Providing and fixing soil, waste, vent and rain water pipes					
		Centrifugally cast (spun) iron S&S pipe					
	17.35.1.3	Hubless centrifugally cast iron pipes epoxy coated inside & outside IS : 15905	metre	170.00	1041.32	177024.40	
127	17.37	Providing and fixing MS holder bat clamps of approved design to cast iron (spun) pipe embedded in and Including cement concrete blocks 10 x10 x10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.					
	17.37.1	For 100mm dia. Pipe	Each	17.00	284.60	4838.20	
128	17.38	Providing and fixing bend of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.					
	17.38.1	100mm					
	17.38.1.3	Hubless centrifugally cast iron epoxy coated inside & outside IS : 15905	Each	17.00	543.16	9233.72	
129	17.39	Providing and fixing plain bend of required degree.					
	17.39.1	100mm dia					
	17.39.1.3	Hubless centrifugally cast iron epoxy coated inside & outside IS : 15905	Each	17.00	340.49	5788.33	
130	17.42	Providing and fixing double equal plain junction of required degree.					
	17.42.1	100x100x100x100 mm					
	17.42.1.3	Hubless centrifugally cast iron pipes epoxy coated inside & outside IS : 15905	Each	17.00	711.43	12094.31	
131	17.44	Providing and fixing single equal plain junction of required degree :					
	17.44.1	100X100X100mm					
	17.44.1.3	Hubless centrifugally cast iron epoxy coated inside & outside IS : 15905	Each	17.00	565.68	9616.56	
132	17.48	Providing and fixing single unequal plain junction of required degree					
	17.48.1	100x 100x75 mm					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
	17.48.1.3	Hubless centrifugally cast iron epoxy coated inside & outside IS : 15905	Each	17.00	532.57	9053.69	
133	17.54.A	Providing and fixing Hubless cast iron offsets epoxy coated inside & outside as per IS : 15905					
	17.54.A.1	130 mm offsets					
	17.54.A.1.1	With 100 mm dia	Each	17.00	618.65	10517.05	
134	17.56	Providing and fixing terminal guard:					
	17.56.1	100mm					
	17.56.1.3	Hubless centrifugally cast iron epoxy coated inside & outside IS : 15905	Each	17.00	393.46	6688.82	
135	17.57.A	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe					
	17.57.A.1	100mm					
	17.57.A.1.1	SS 304 grade coupling with EPDM rubber gasket	Each	17.00	400.09	6801.53	
136	18.58	Providing and fixing PTMT grating of approved quality and colour					
	18.58.1	Circular type					
	18.58.1.2	125 mm nominal dia	Each	12.00	50.74	608.88	
137	AS PER 19.2	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand: 10 graded stone aggregate 40 mm nominal size) around CI HUBLESS including bed concrete as per standard design					
		Note: This work shall be done all-round PIPE AT ground floor's toilet.					
	19.2.1	100mm diameter	metre	70.00	686.62	48063.40	
138	18.7	Providing and fixing G.I. pipes complete with GI fittings and clamps including cutting and making good the walls etc. (internal work) exposed on wall.					
	18.7.4	32 mm nominal outer dia pipes	Rm	2.00	394.00	788.00	
	18.7.5	40 mm nominal outer dia pipes	Rm	18.00	536.72	9660.96	
	18.7.6	50 mm nominal outer dia pipes	Rm	0.00	789.10	0.00	
139	18.40	Painting GI pipes and fittings with two coats of anti corrosive bitumastic paint of approved quality					
	18.40.4	32 mm nominal outer dia pipes	Rm	2.00	11.68	23.36	
	18.40.5	40 mm nominal outer dia pipes	Rm	18.00	13.32	239.76	
	18.40.6	50 mm nominal outer dia pipes	Rm	0.00	15.79	0.00	
140	12.41	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.					
	12.41.2	110 mm diameter	metre	127.00	257.97	32762.19	
	12.41.1	75 mm diameter	metre	24.00	163.51	3924.24	
141	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.					
	12.42.1	Coupler					
	12.42.1.2	110 mm	Each	24.00	116.63	2799.12	
	12.42.1.1	75 mm	Each	8.00	77.08	616.64	
	12.42.2	Single Pushfit Coupler					
	12.42.2.2	110 mm	Each	24.00	107.37	2576.88	
	12.42.2.1	75 mm	Each	8.00	77.08	616.64	
	12.42.3	Single tee with door					
	12.42.3.2	110 mm x 110 mm x 110 mm	Each	24.00	201.28	4830.72	
	12.42.3.1	75 mm x 75 mm x 75 mm	Each	8.00	138.46	1107.68	
	12.42.4	Single tee without door					
	12.42.4.2	110 mm x 110 mm x 110 mm	Each	24.00	186.68	4480.32	
	12.42.4.1	75 mm x 75 mm x 75 mm	Each	8.00	121.24	969.92	
	12.42.5	Bend 87.5 degree					
	12.42.5.2	110 mm	Each	24.00	128.56	3085.44	
	12.42.5.1	75 mm	Each	8.00	89.01	712.08	
	12.42.6	Shoe (Plain)					
	12.42.6.2	110 mm	Each	24.00	112.67	2704.08	
	12.42.6.1	75 mm	Each	8.00	78.41	627.28	
142	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality					
	19.19.3	H D - 20					
	19.19.3.1	Circular shape 560 mm internal diameter	Each	2.00	1432.11	2864.22	
143	7760	P/F M.S. cap 100 mm dia	Each	20.00	133.66	2673.20	
		WATER SUPPLY INSTALLATIONS					
144	17.30	Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.	Each	12.00	44.55	534.60	

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
145	18.7	Providing and fixing CPVC pipes having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 mt spacing. this includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of engineer in charge.					
		Internal work -Exposed on Wall					
	18.7.1	15 mm nominal outer dia pipes	Rm	40.00	173.86	6954.40	
	18.7.2	20 mm nominal outer dia pipes	Rm	209.00	232.17	48523.53	
	18.7.3	25 mm nominal outer dia pipes	Rm	77.00	293.81	22623.37	
	18.7.4	32 mm nominal outer dia pipes	Rm	16.00	394.00	6304.00	
	18.7.5	40 mm nominal outer dia pipes	Rm	5.00	536.72	2683.60	
	18.7.6	50 mm nominal outer dia pipes	Rm	0.00	789.10	0.00	
146	18.8	Providing and fixing CPVC pipes having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 mt spacing. this includes jointing of pipes and fittings with one step CPVC solvent cement and the cost of cutting chases and making good the wall same including testing of joints complete as per the direction of engineer incharge					
		Concealed work including cutting chases and making good the wall etc.					
	18.8.1	15 mm nominal outer dia pipes	Rm	21.00	290.89	6108.69	
	18.8.2	20 mm nominal outer dia pipes	Rm	46.00	358.71	16500.66	
	18.8.3	25 mm nominal outer dia pipes	Rm	18.00	441.68	7950.24	
	18.8.4	32 mm nominal outer dia pipes	Rm	2.00	557.71	1115.42	
147	DSR Item 18.10	Providing and fixing G.I. pipes complete with GI fittings and clamps including cutting and making good the walls etc. (internal work)					
		For roof level					
	18.10.1	15 mm dia, nominal bore	Rm	0.00	223.26	0.00	
	18.10.2	20 mm dia, nominal bore	Rm	15.00	275.44	4131.60	
	18.10.3	25 mm dia, nominal bore	Rm	25.00	361.93	9048.25	
	18.10.4	32 mm dia, nominal bore	Rm	5.00	442.67	2213.35	
	18.10.5	40 mm dia, nominal bore	Rm	15.00	527.81	7917.15	
	18.10.6	50 mm dia, nominal bore	Rm	0.00	649.84	0.00	
148	DSR Item 13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade					
	13.61.1	Two more coat on new work	Sqm	169.00	81.58	13787.02	
149	18.17	Providing and fixing of gun metal gate valve with CI wheel of approved quality (screwed ends)					
	18.17.1	25mm dia, nominal bore	Each	12.00	492.22	5906.64	
	18.17.2	32 mm dia, nominal bore	Each	10.00	575.49	5754.90	
	18.17.3	40 mm dia, nominal bore	Each	2.00	671.67	1343.34	
	18.17.4	50 mm dia, nominal bore	Each	0.00	860.58	0.00	
150	10.2	Structural steel work 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	135.00	85.79	11581.65	
151	18.46	Providing and fixing G.I. union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (new work)					
	18.46.1	15mm nominal bore	Each	4.00	160.69	642.76	
	18.46.2	20mm nominal bore	Each	4.00	185.84	743.36	
	18.46.3	25mm nominal bore	Each	4.00	264.01	1056.04	
	18.46.4	32mm nominal bore	Each	4.00	307.72	1230.88	
	18.46.5	40mm nominal bore	Each	4.00	375.29	1501.16	
	18.46.6	50mm nominal bore	Each	4.00	493.01	1972.04	
152	18.48	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	per litre	1500.00	8.71	13065.00	
153	18.49	Providing and fixing C.P. brass bib cock of approved quality confirming to IS:8931					
	18.49.1	15mm nominal bore	Each	0.00	414.80	0.00	
		EXTERNAL DRAINAGE INSTALLATIONS.					
154	2.10	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :					
		All kinds of soil					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
		up to 1.50 m depth					
	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	110.00	226.09	24869.90	
155	4.1	Providing and laying in position cement concrete of grade excluding the cost of centering and shuttering - all work up to plinth level					
	4.1.10	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	CUM	10.00	4639.29	46392.90	
156	19.7	Constructing brick masonry manhole with F.P.S. bricks in cement mortar 1 : 4 (1 cement : 4 coarse sand) RCC top slab with 1 : 2 : 4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20mm nominal size); foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1cement 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finishd with a floating coat of neat cement complete as per standard design					
	19.7.1.1	Inside size 90 x 80 cm & 45 cm deep including CI cover with frame (light duty) 455 x 610mm internal dimension total wt. of cover & frame to be not less than 38 kg (wt. of cover 23 kg and wt. of frame 15 kg)	each	6.00	9491.50	56949.00	
157	19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS : 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	36.00	342.22	12319.92	
158		Providing and fixing square mouth SW gully trap grade 'A' complete CI grating brick masonry chamber with bricks of class designation 75 and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 13.00 kg and frame to be not less than 5 kg. as per standard design. (COVER MIN. 4.5 KG & FRAME MIN.2.7 KG)					
	19.4.3.1	180x150 mm size P type With FPS bricks	each	3.00	2180.86	6542.58	
159	19.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :					
	19.1.2	150 mm diameter	metre	5.00	402.87	2014.35	
	19.1.3	200 mm diameter	metre	70.00	679.30	47551.00	
	19.1.4	250 mm diameter	metre	5.00	1028.80	5144.00	
160	19.6	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete. (for storm drainage)					
	19.6.2	150 mm dia RCC pipe	Meter	30.00	398.11	11943.30	
	19.6.3	250 mm dia RCC pipe	Meter	35.00	650.54	22768.90	
161	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :					
	19.2.2	150 mm diameter	metre	5.00	839.69	4198.45	
	19.2.3	200 mm diameter	metre	70.00	978.90	68523.00	
	19.2.4	250 mm diameter	metre	5.00	1131.96	5659.80	
162	19.21	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement cincrete 1:2:4 mix (1cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete	Item	1.00	412.07	412.07	
	19.21.1	For pipes 100 to 250 mm dia.					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
C		<u>ELECTRICAL WORKS</u>					
		WIRING					
163	1.10	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.					
	1.10.3	Group C	Point	105.00	980.18	102918.90	
164	1.55	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.					
	1.55.3	Group C	Point	122.00	549.50	67039.00	
165	1.14	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.					
	1.14.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	meter	221.00	144.55	31945.55	
	1.14.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Meter	70.00	165.34	11573.80	
	1.14.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Meter	297.00	198.02	58811.94	
	1.14.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Meter	33.00	246.53	8135.49	
	MR	4 X 1.5 sq. mm + 2 X 1.5 sq. mm earth wire	meter	166.00	190.00		31540.00
	1.14.7	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	Meter	53.00	230.69	12226.57	
	1.14.8	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Meter	223.00	304.95	68003.85	
166	1.21	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
	1.21.1	20 mm	Meter	170.00	83.17	14138.90	
	1.21.2	25 mm	Meter	578.00	89.11	51505.58	
	1.21.3	32 mm	Meter	15.00	91.09	1366.35	
167	1.22	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.					
	1.22.2	100 mm X 100 mm X 60 mm deep	Each	13.00	158.41	2059.33	
168	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	36.00	31.68	1140.48	
169	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	7.00	397.02	2779.14	
170	1.56	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlet and 2 Nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	Each	12.00	576.23	6914.76	
171	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 A & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	27.00	490.09	13232.43	
172	1.25	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	21.00	338.61	7110.81	
173	1.33	Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required.	Each	7.00	64.36	450.52	
174	1.57	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	Each	1.00	632.66	632.66	
175	1.27	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.					
	1.27.1	1 or 2 Module (75mm X 75mm)	Each	22.00	240.59	5292.98	
176	1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
	1.24.6	Telephone socket outlet	Each	11.00	117.82	1296.02	

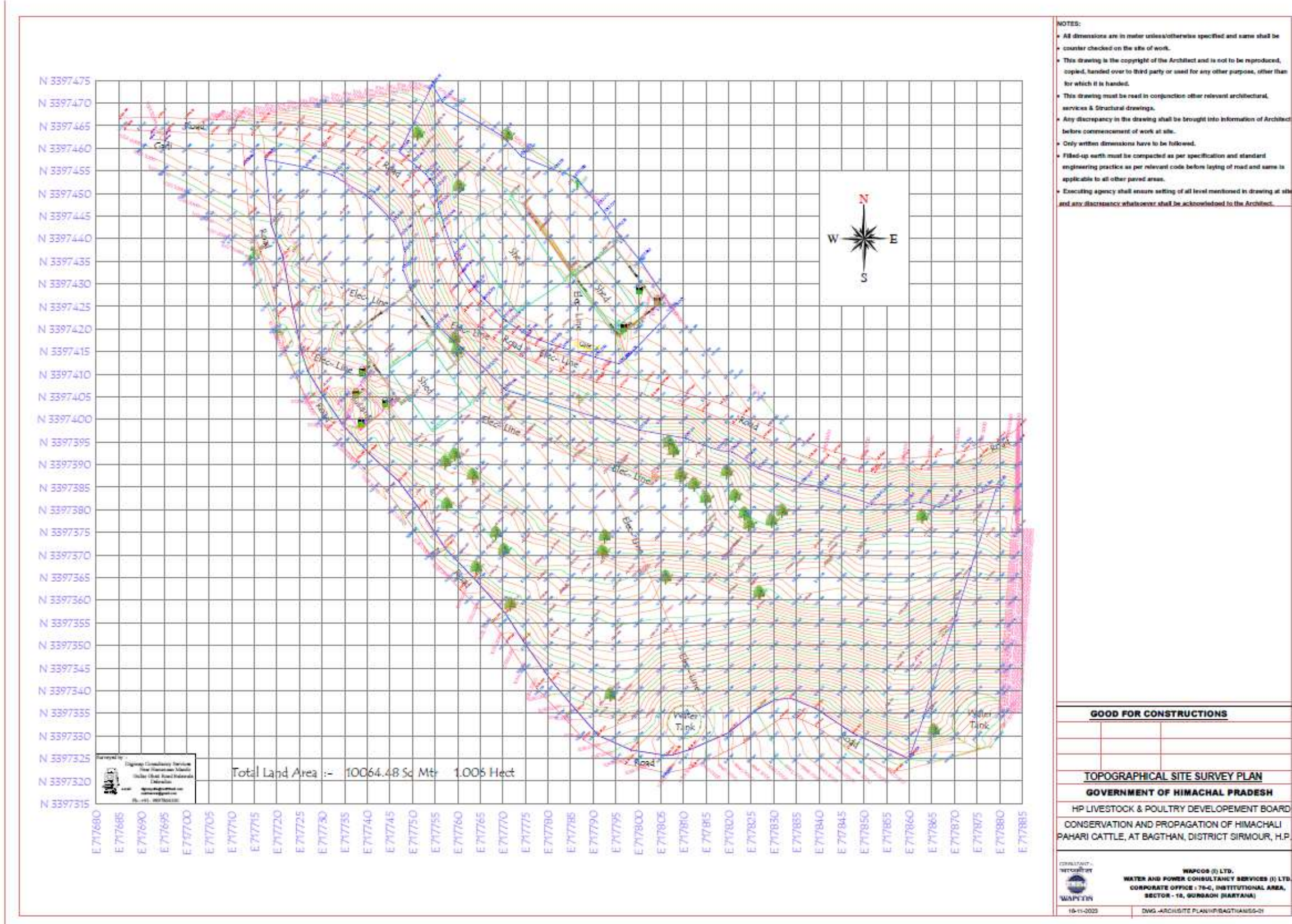
Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
	MR	Data outlet	Each	11.00	190.00		2090.00
177		Supply & fixing of telephone tag blocks with 'KRONE' terminal connectors fixed in minimum 1.2mm thick powder coated, hinged, lockable door, sheet steel of following enclosure including civil work such as chase cutting, fixing / concealing the box and making good as required including terminations:					
	MR	20 pair tele tag block	Set	1.00	3500.00		3500.00
178	1.18	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
	1.18.1	1 Pair	Meter	330.00	18.81	6207.30	
179	1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.					
	1.53.1	1 run of cable	Meter	330.00	48.51	16008.30	
		DISTRIBUTION BOARDS					
180	2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
	2.3.3	12 way, Double door	Each	2.00	2292.05	4584.10	
	2.3.2	8 way, Double door	Each	6.00	2547.49	15284.94	
181	2.4	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/ Isolator)					
	MR	12 way (4 + 36), Double door	Each	2.00	7350.00		14700.00
182	2.10	Supplying and fixing 5A to 32A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	2.10.1	Single pole	Each	116.00	253.46	29401.36	
	2.10.3	Double pole	Each	6.00	649.50	3897.00	
183	2.11	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	34.00	12.87	437.58	
184	MR	Supplying and fixing following rating, four pole, 415 V, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	MR	63 amps	Each	2.00	1970.00		3940.00
185	MR	Supplying and fixing following rating, double pole, 240 V, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	MR	40 A	Each	2.00	1010.00		2020.00
186	2.14	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	2.14.3	63 amps	Each	6.00	2695.01	16170.06	
187	2.23	Supplying and fixing Cable End Box (Loose wire box)(IP 43) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with testing and commissioning etc. as required.					
	2.23.4	For 14 way, Double door SPN MCBDB	Each	2.00	893.06	1786.12	
	2.23.2	For 8 way, Double door SPN MCBDB	Each	6.00	823.75	4942.50	
188	2.24	Supplying and fixing Cable End Box (Loose wire box)(IP 43) suitable for following triple pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.					
189	MR	For 12 way, Double door TPN MCBDB	Each	2.00	2850.00		5700.00
		SUPPLY OF LIGHT FIXTURES AND FANS					
		Note:-The model numbers specified below are only for references for Shape of the product requirement. The product shall supplied, must match the technical specifications. The technical data sheets shall be arranged before the material dispatch and got approved from engineer-in-charge.					
190	MR	Supply of 15W round surface sleek LED fitting (Approved makes: Havells: Integra or equivalent)	Each	58.00	1043.00		60494.00
191	MR	Supply of 10-12W round surface sleek LED fitting (Approved makes: Havells: Integra or equivalent)	Each	16.00	968.00		15488.00

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
192	MR	Supply of 9W Mirror light LED fitting . (Approved makes: Havells: Lumiline Plus or equivalent)	Each	7.00	336.00		2352.00
193	MR	Supply of 10W Bulk Head Light LED fitting . (Approved makes: Havells: Rugby or equivalent)	Each	3.00	545.00		1635.00
194	MR	Supply of 20W 4Feet LED Batten Light fitting . (Approved makes: Havells: Lumiline or equivalent)	Each	115.00	650.00		74750.00
195	MR	Supply of 1200mm sweep energy saving ceiling fans ISI marked with low power consumption not more than 70 W aluminium motor covers of larger diameter complete with copper wound stator, double ball bearings, aluminium blades, down rod, shackle insulator, canopy but without regulator etc complete as required. (Similar to Havells Pacer or equivalent as per approved list of make.)	Each	20.00	2350.00		47000.00
196	MR	Supply of 900mm sweep energy saving ceiling fans ISI marked with low power consumption not more than 70 W aluminium motor covers of larger diameter complete with copper wound stator, double ball bearings, aluminium blades, down rod, shackle insulator, canopy but without regulator etc complete as required. (Similar to Havells SS-390 or equivalent as per approved list of make.)	Each	1.00	2300.00		2300.00
196	MR	Supply of 250mm sweep energy saving PVC exhaust fans with low power consumption not more than 50 W, etc complete with base frame and mounting arrangement with lovers complete as required. (Similar to Havells-VENTIL AIR DX or equivalent as per approved list of make.)	Each	7.00	1781.00		12467.00
		INSTALLATIONS OF LIGHT FIXTURES AND FANS					
197	MR	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	199.00	168.00		33432.00
198	1.45	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	Each	21.00	200.99	4220.79	
199	1.50	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.					
	1.50.1	Upto 450 mm sweep	Each	7.00	359.40	2515.80	
200	1.49	Numbering of ceiling fan/ exhaust fan/ fluorescent fittings as required.	Each	227.00	47.52	10787.04	
		MV PANEL					
201	MR	ELECTRICAL PANEL (OUTDOOR TYPE)	Set	1.00	95000.00		95000.00
		INCOMER					
		1 Nos. 125A 4P MCCB built in thermal magnetic based release (adjustable O/L, adjustable S/C & adjustable E/F) of fault breaking capacity 25KA (Ics=Icu=100%) upto 415V manually operated with extended rotary handle with castle lock for door interlock with Phase spreader & Phase Barriers at both sides. MCCB shall conforming to IS-1397-2 1993 as amended.					
		METERING, INDICATOR AND RELAYS					
		Provide 3 Nos. Resin cast CTs, Class-1.0 and MFM True RMS type digital with min. features of measurements covering A,V,HZ, PF, kW,VAR,VA, kVA, kVAR, kWh, kVAH, kVARH,MDI, Harmonics,Run Hours, RS-485 Port, LCD display with class-0.5 accuracy for all incomer feeder.					
		1Set of R,Y,B phase indication lamps with control MCB as per fault requirement with each incomer					
		Provide 3Nos indicating lamps for status indication "ON","OFF" , Tripped due to earth fault on each incomer MCCB.					
		BUSBAR & TVSS					
		150Amps TP+50%NL, 25kA, 500volts grade busbar chamber of suitable length with Aluminium busbars mount on SMC supports. All interconnections shall be as follows; a). Upto 63A, FRLS PVC insulated copper flexible colour coded wires b). 64Amp to 200Amp Copper Bus-bars and c). 201Amp and above Aluminium Bus-bars , current density of bus-bars shall not be less than 1Amps/sq.mm for Aluminium and 2Amps/sq.mm for copper cross sectional area of Bus Bar.					

Sl. No.	SOR-2020	DESCRIPTION	UNIT	Total Qty	RATE	SOR Amount	MR Amount
		1 No Surge protection device Type 2 (Class C), 4 Mode, MOV type suitable for 8/ 20µs surge,Voltage Protection level Up < 1.8kV, Operating Temperature -40 deg 'c' - +80 deg 'C', Connected Between 3Nos. phase to neutral and 1Nos. neutral to earth with discharge Current I _{max} ≥ 40KA Per mode & In ≥ 20kA per Mode. Make & Model: Argos-AG-230-40T2-E or eq. SPD with 63A 4P HRC fuses of 100kA breaking capacity. For connecting SPD minimum 10sqmm copper wire must be used & length of connecting leads shall not be more than 500mm for per mode connection with each busbar including all necessary accessories. The SPD shall compliance with IEC 61643-11 and certified by TUV,CE,ROHS,UL94V-O..					
		OUTGOINGS					
		5 Nos. 32A, DP 'C' Curve 10kA MCB with central overload trip mechanism and flag indication					
		3 Nos. 63A, DP 'C' Curve 10kA MCB with central overload trip mechanism and flag indication					
		5 Nos. 63A, 4P 'C' Curve 10kA MCB with central overload trip mechanism and flag indication					
		MS Stand of 450mm height to be provided with black painted.					
		L.T./ CONTROL CABLES					
202		Supply of following sizes of Power Cables multi stranded Aluminium conductor, XLPE Insulated, cores laid up PVC tape / Extruded Inner sheath , Armour, FRLS at outer sheath,1100V grade as per IS 7098(Part 1) 1988 with upto date amendments.					
		3.5 CORES					
	MR	35 sq.mm.	Meter	50.00	292.00		14600.00
		4 CORES					
	MR	10 sq.mm.	Meter	35.00	172.00		6020.00
		2 CORES					
	MR	6 sq.mm.	Meter	485.00	140.00		67900.00
203	7.5	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size in the existing RCC/ HUME/ METAL pipe as required.					
	7.5.1	Upto 35 sq. mm	meter	570.00	36.63	20879.10	
204	9.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required					
	9.1.21	3½ X 35 sq. mm (32mm)	Each	2.00	365.34	730.68	
	9.1.32	4 X 10 sq. mm (25 mm)	Each	4.00	266.33	1065.32	
	9.1.1	2 X 6 sq. mm (19mm)	Each	16.00	237.62	3801.92	
205	14.16	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.					
	14.16.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Meter	535.00	244.55	130834.25	
A		Sub Total				2,96,14,492.52	5,91,419.30
B		Grand Total (SOR+MR) excl. GST				3,02,05,911.82	

SECTION 9 DRAWING VOLUME

9.1 Drawing 1: Topographical Survey



9.2 Drawing 2: Topographic Survey Drawing superimposed on Google Earth



NOTES:

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- Executing agency shall ensure setting of all level mentioned in drawing at site and any discrepancy whatsoever shall be acknowledged to the Architect.

Total Land Area :- 10064.48 Sq Mtr 1.006 Hect

SITE A :- 1736.61 Sq Mtr 0.1736 Hect

SITE B :- 8327.87 Sq Mtr 0.8327 Hect

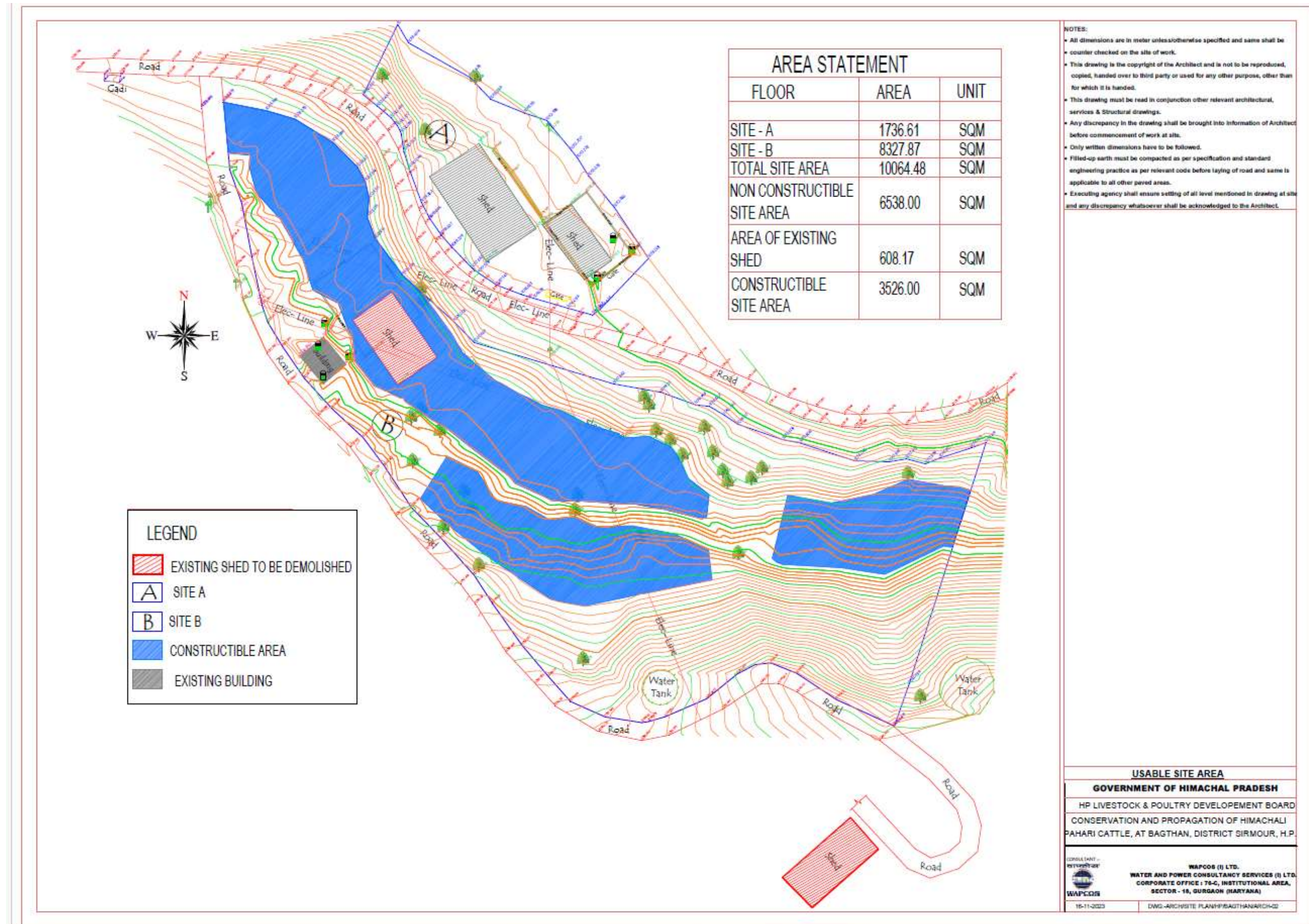
S NO.	BUILDING	FLOORS	LENGTH X BREADTH	AREA (SQM)
1	COW SHED	G	36.00 X 14.00	504.00
2	MILK BARN SHED	G	11.00 X 12.42	136.56
3	CALF PEN SHED	G	8.00 X 8.00	64.00
4	CALVING PEN SHED	G	21.04 X 7.06	148.58
5	HEIFER SHED	G	8.80 X 10.32	90.76
6	ISOLATION SHED	G	8.00 X 8.44	67.52
7	ADMIN PLANT	G+1	17.00 X 10.00	170.00
8	FOOD STORE	G	20.00 X 10.00	200.00
9	WATER	G	1.00 X 3.00	3.00
10	BULL SHED	G	8.80 X 10.32	90.76

REVISION NO.	REVISION REMARKS	REV. DATE
R01	REVISION AS PER INPUTS RECEIVED AFTER REVIEW MEETING AND SITE VISIT DATED 15-12-23	09-01-2024
R02	REVISION AS PER INPUTS RECEIVED AFTER REVIEW MEETING AND SITE VISIT DATED 21-01-24	04-02-2024

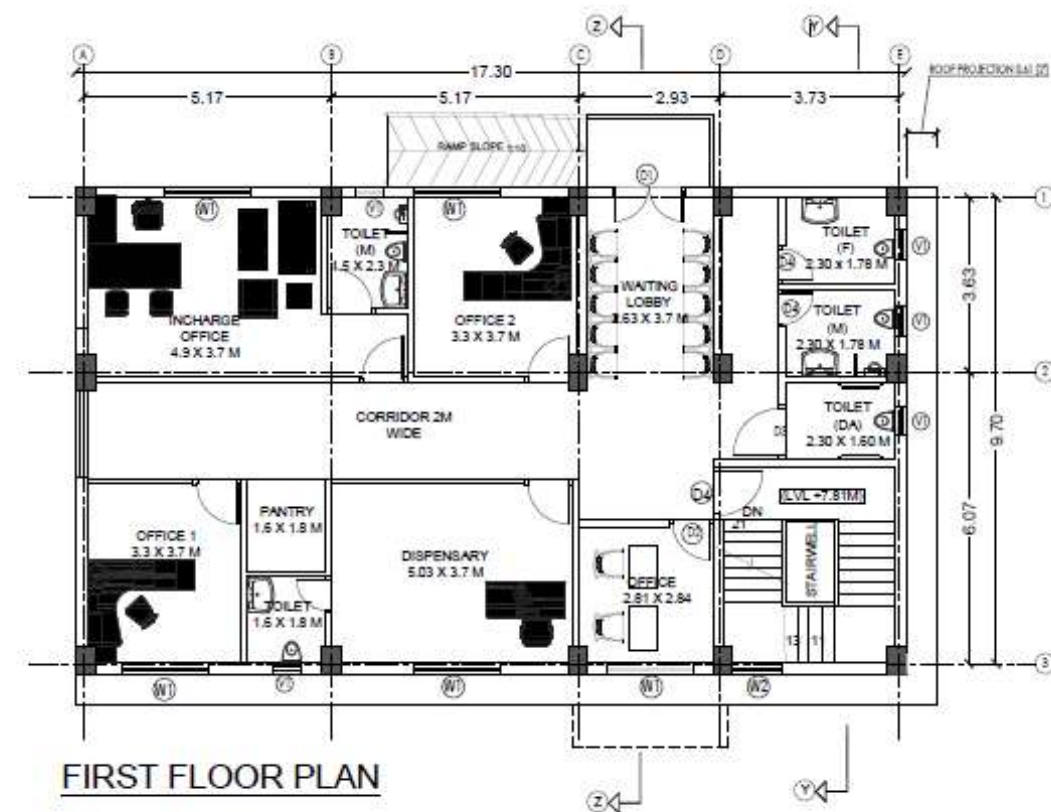
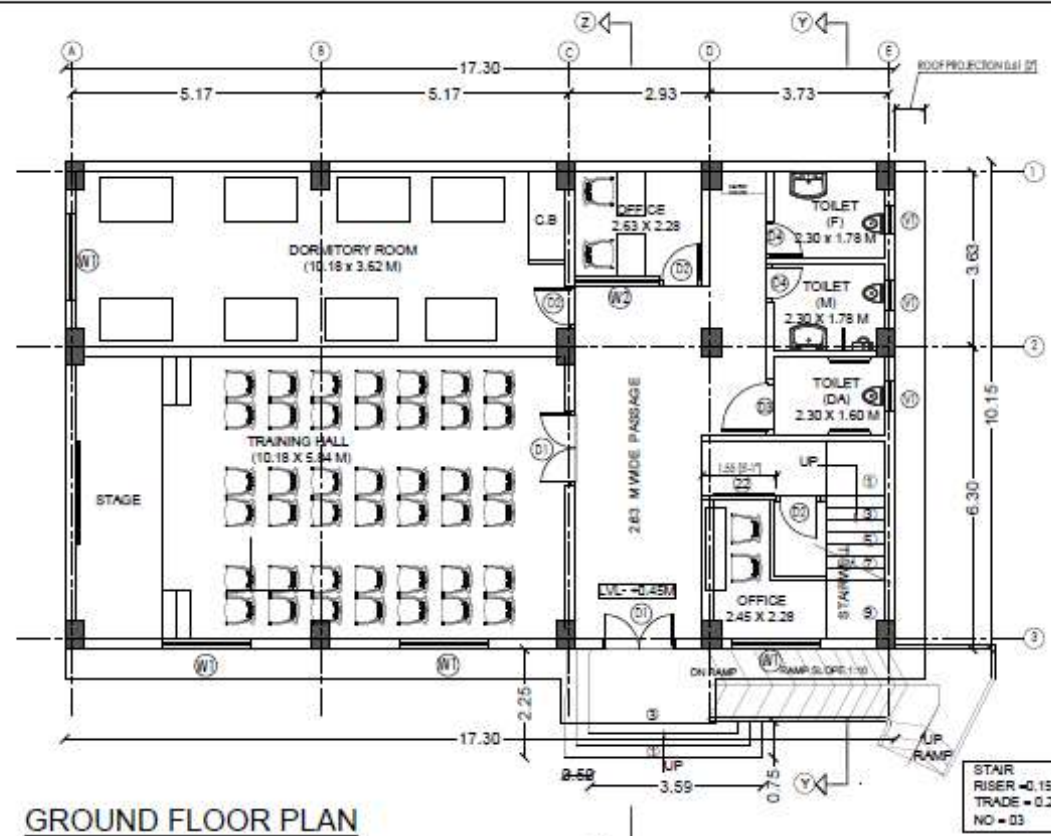
PROPOSED SITE PLAN
GOVERNMENT OF HIMACHAL PRADESH
 HP LIVESTOCK & POULTRY DEVELOPEMENT BOARD
 CONSERVATION AND PROPAGATION OF HIMACHALI
 PAHARI CATTLE, AT BAGTHAN, DISTRICT SIRMOUR, H.P.

WAPCOS (I) LTD.
 WATER AND POWER CONSULTANCY SERVICES (I) LTD.
 CORPORATE OFFICE: 78-C, INSTITUTIONAL AREA,
 SECTOR - 18, GURGAON (HARYANA)
 03-01-2024 DWG-ARCHSITE PLAN/HPBAGTHAN/SPARCH03

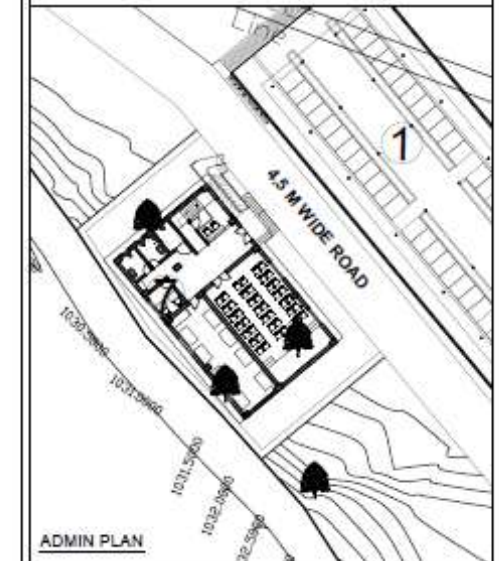
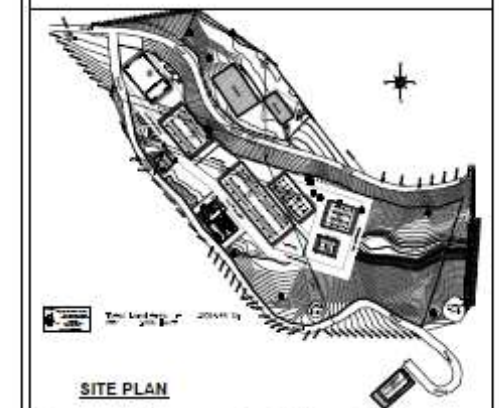
9.3 Drawing 3: Site plan with existing structures



9.4 Drawing 4: Admin Building

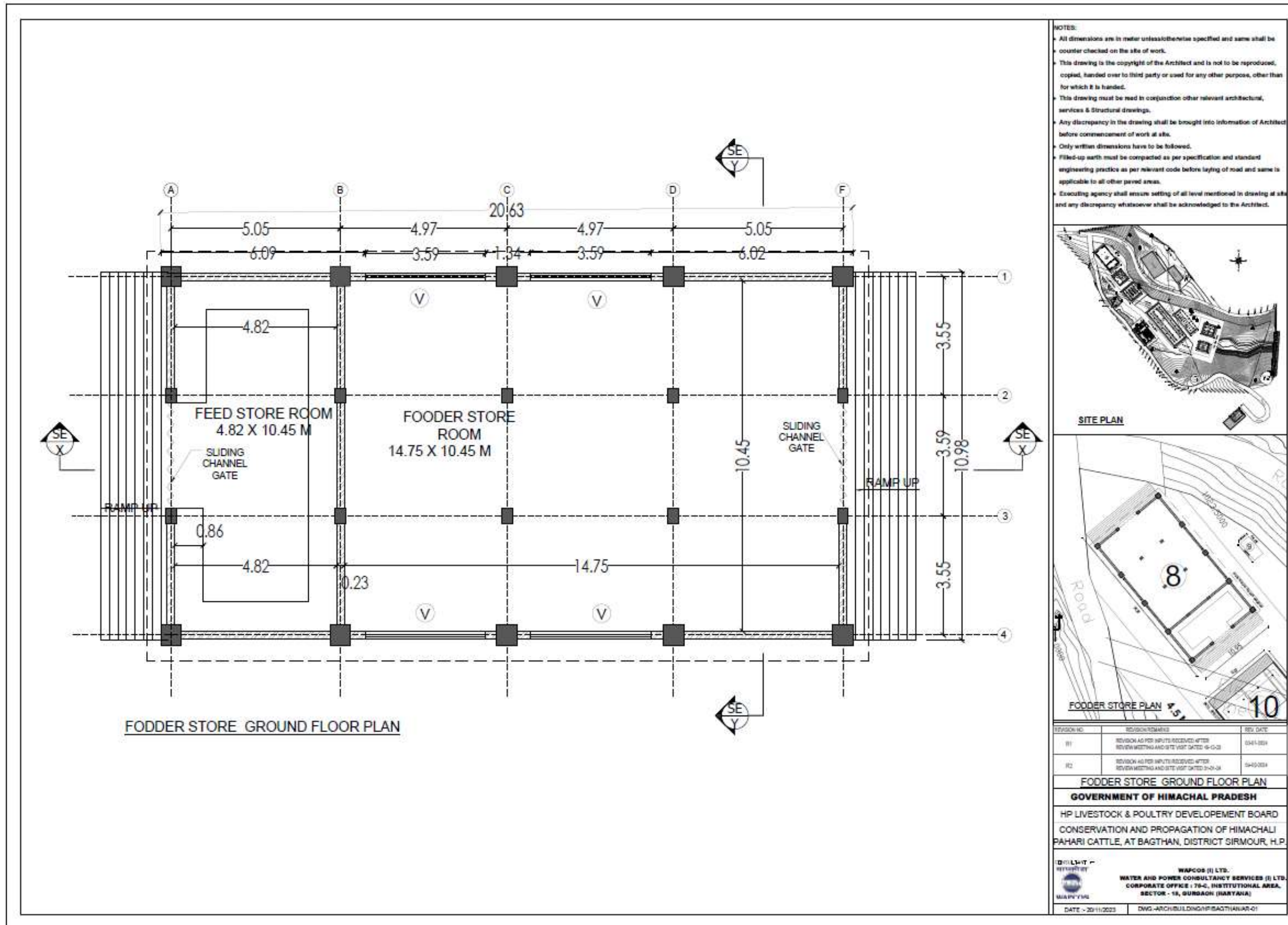


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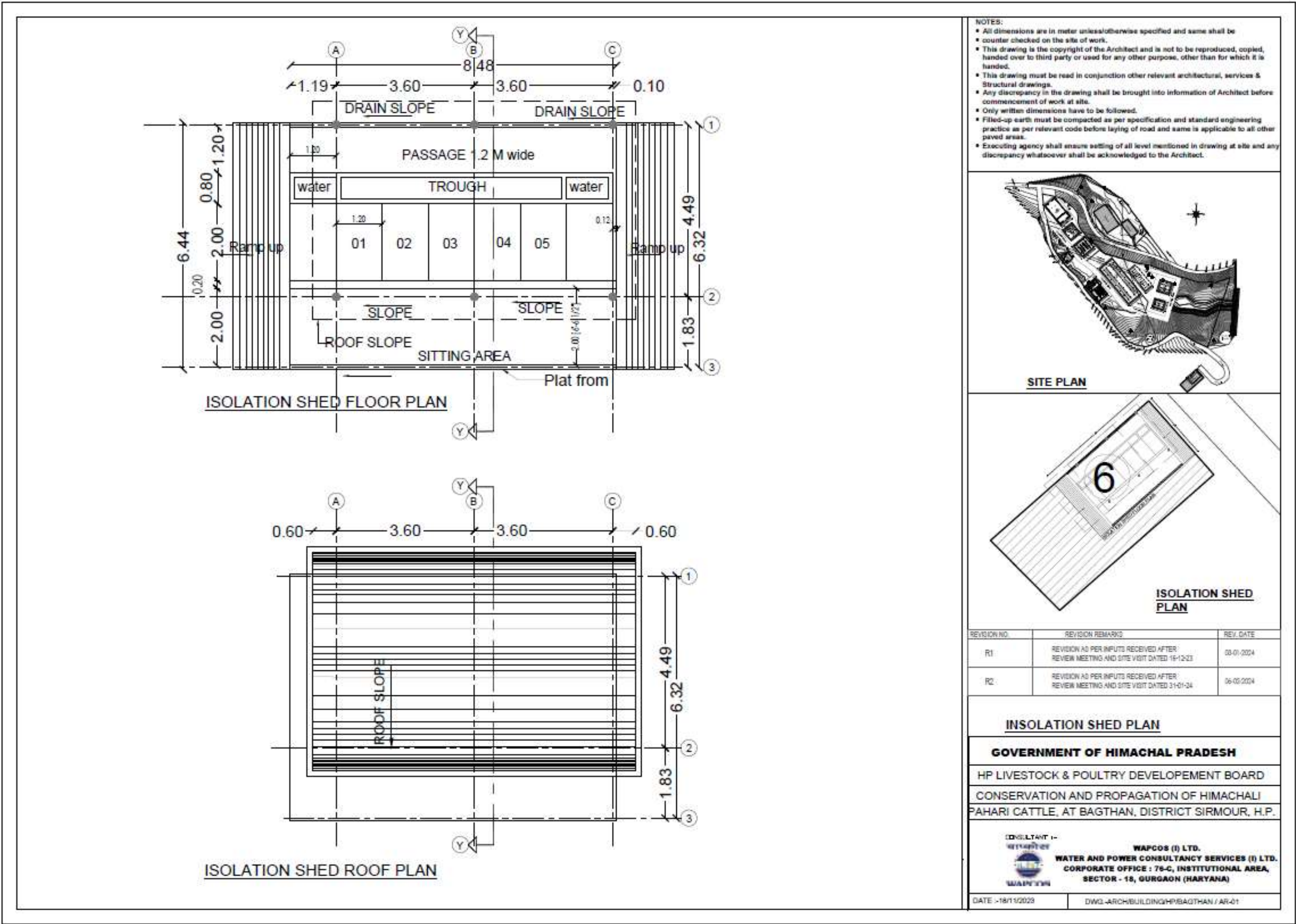


ADMIN FLOOR PLAN	
GOVERNMENT OF HIMACHAL PRADESH	
HP LIVESTOCK & POULTRY DEVELOPEMENT BOARD CONSERVATION AND PROPAGATION OF HIMACHALI PAHARI CATTLE, AT BAGTHAN, DISTRICT SIRMOUR, H.P.	
	WAPCOS (I) LTD. WATER AND POWER CONSULTANCY SERVICES (I) LTD. CORPORATE OFFICE : 75-C, INSTITUTIONAL AREA, SECTOR - 18, GURGAON (HARYANA)
DATE : 01/12/2024	DWG-ARCHIBUILDINGHPUNABAGTHAN-01

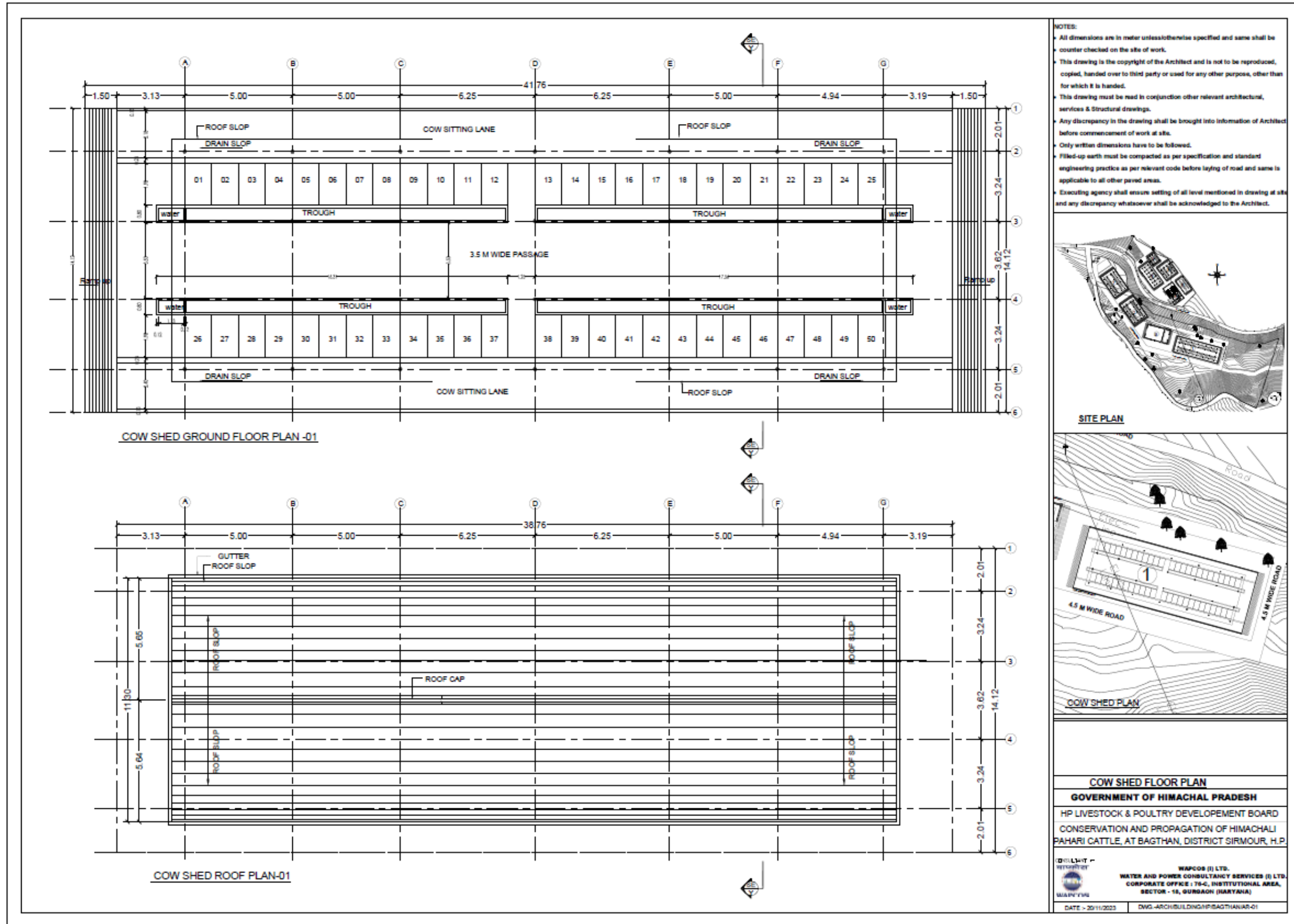
9.5 Drawing 5: Fodder Store



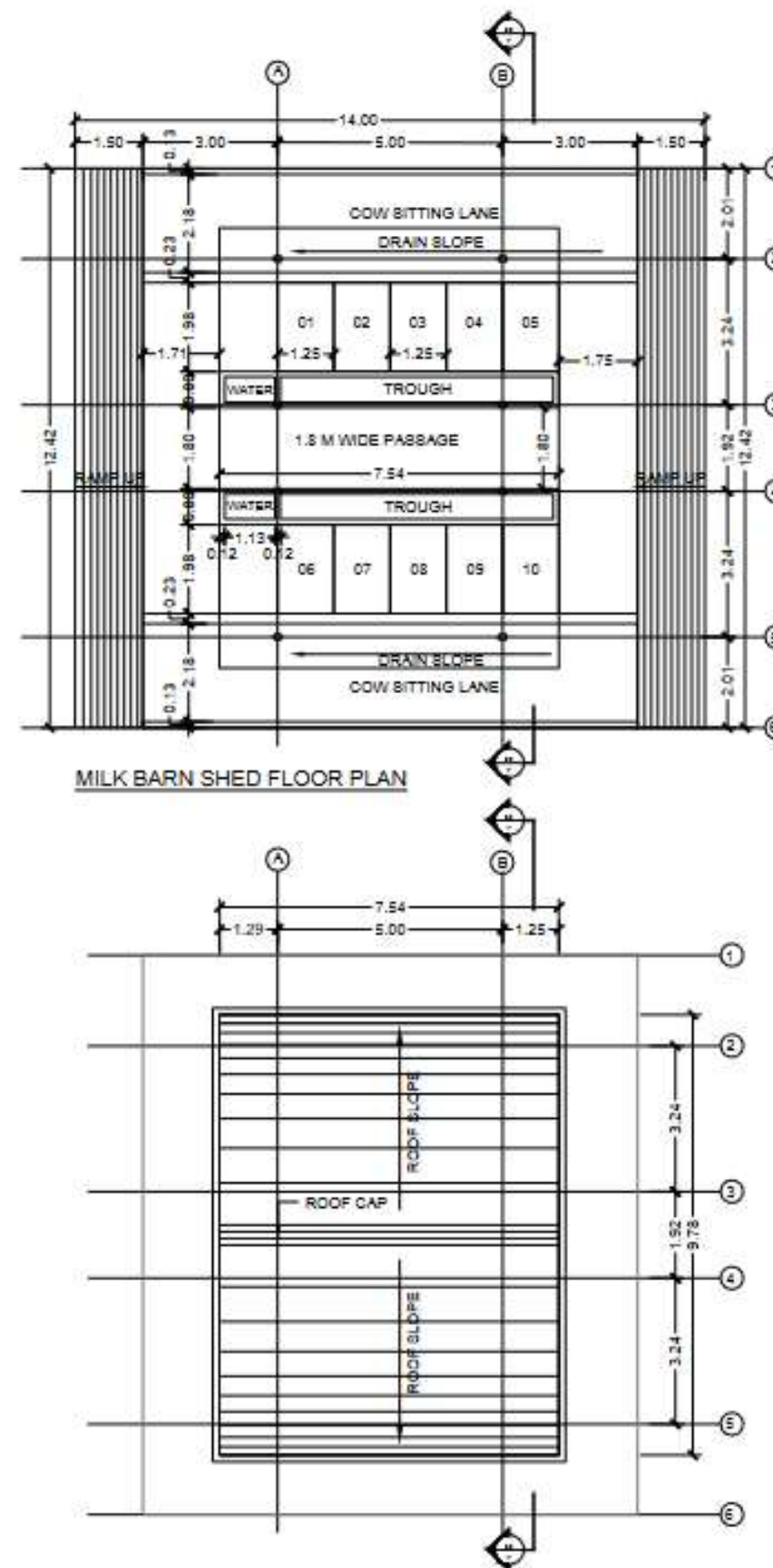
9.6 Drawing 6: Isolation Shed



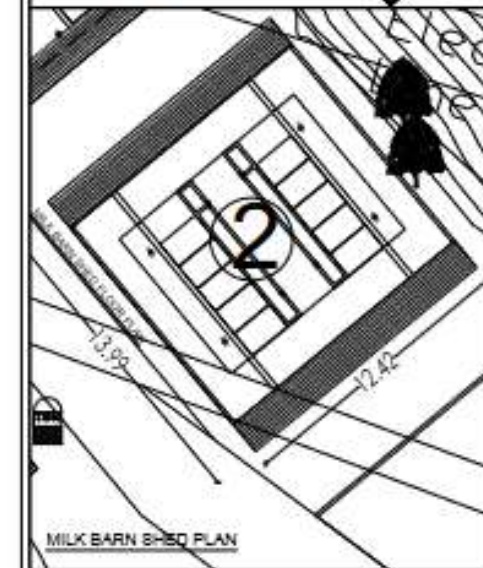
9.7 Drawing 7: Cow Shed



9.8 Drawing 8: Milk Barn Shed

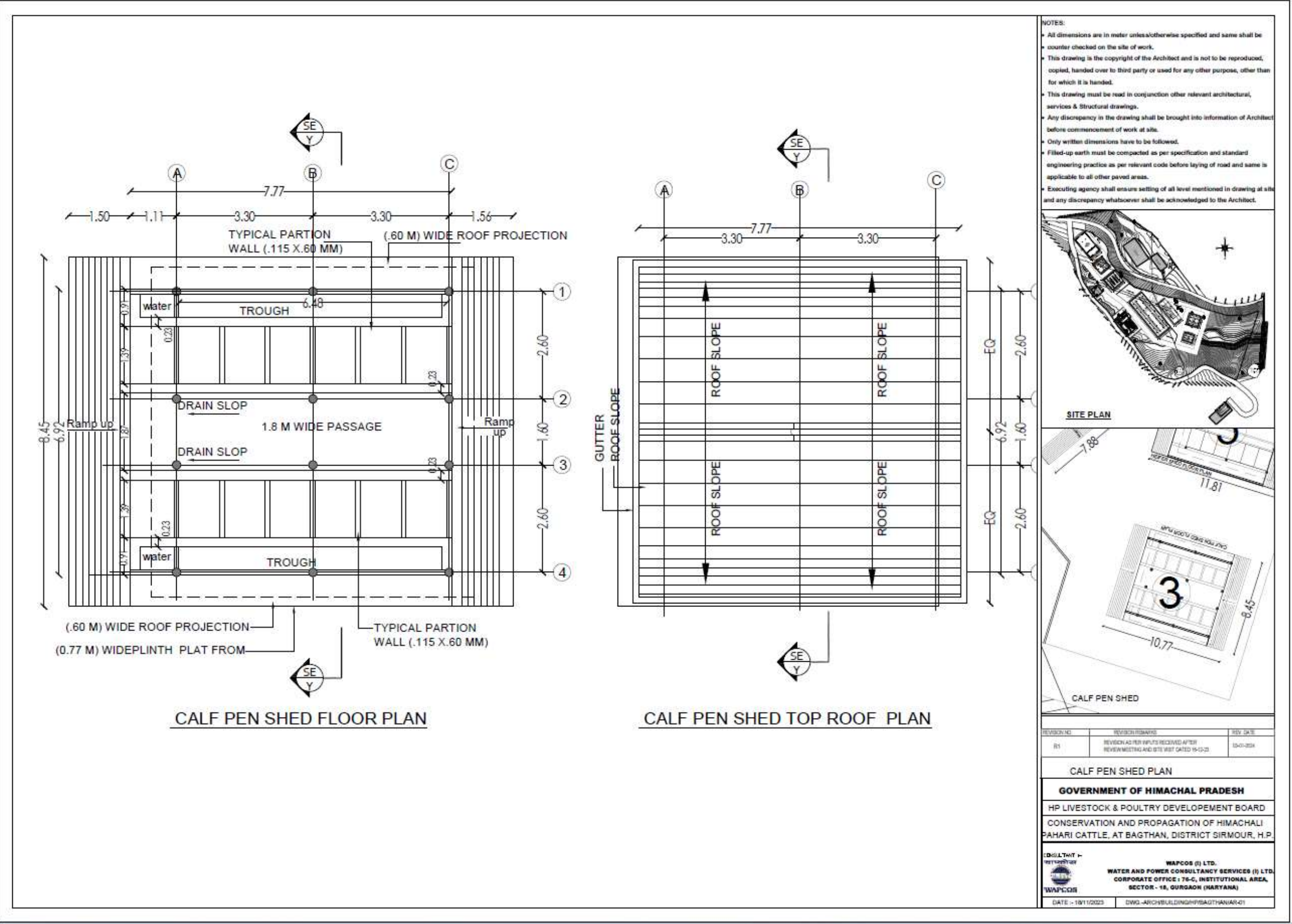


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 - Erecting agency shall ensure setting of all level mentioned in drawing at site and any discrepancy whatsoever shall be acknowledged to the Architect.

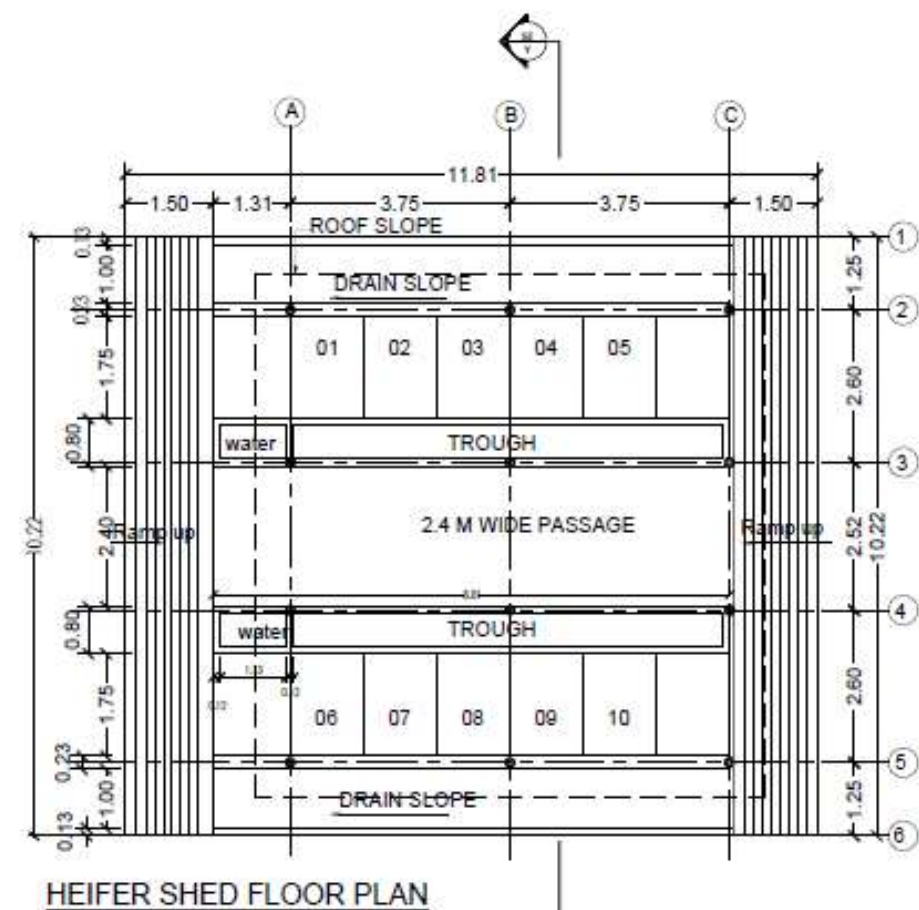


MILK BARN SHED FLOOR PLAN	
GOVERNMENT OF HIMACHAL PRADESH	
HP LIVESTOCK & POULTRY DEVELOPEMENT BOARD	
CONSERVATION AND PROPAGATION OF HIMACHALI	
PAHARI CATTLE, AT BAGTHAN, DISTRICT BIRMOUR, H.P.	
CONSULTANT - WAPCOS (I) LTD. WATER AND POWER CONSULTANCY SERVICES (I) LTD. CORPORATE OFFICE - T-6, INSTITUTIONAL AREA, SECTOR - 12, GURGAON (HARYANA)	DATE - 20/11/2023

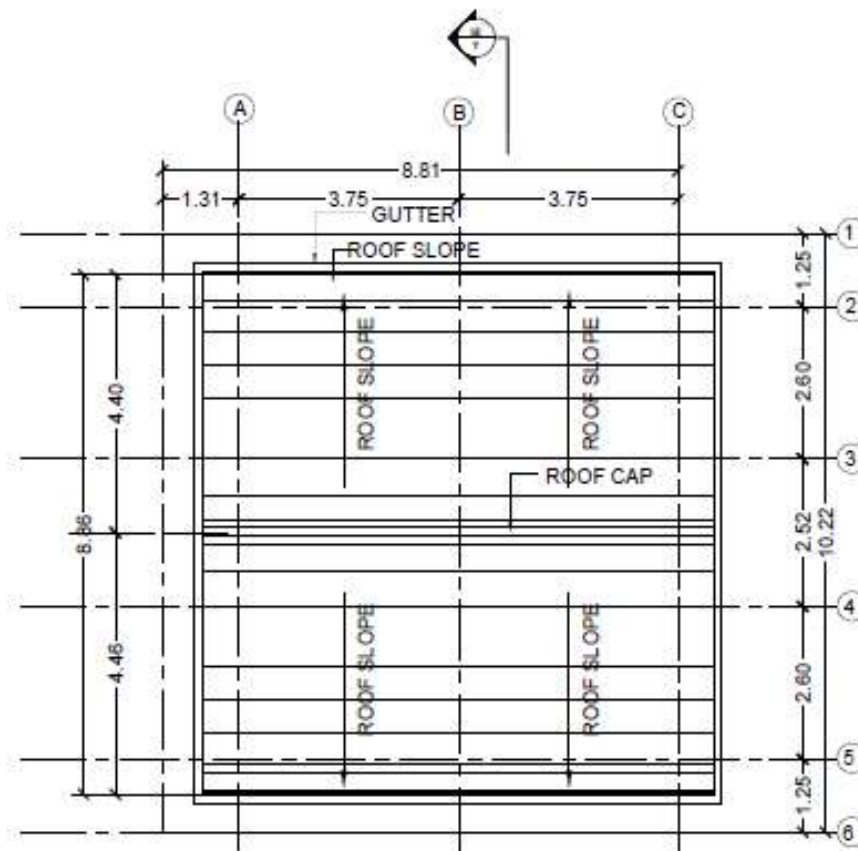
9.9 Drawing 8: Calf Pen Shed



9.10 Drawing 8: Heifer Shed

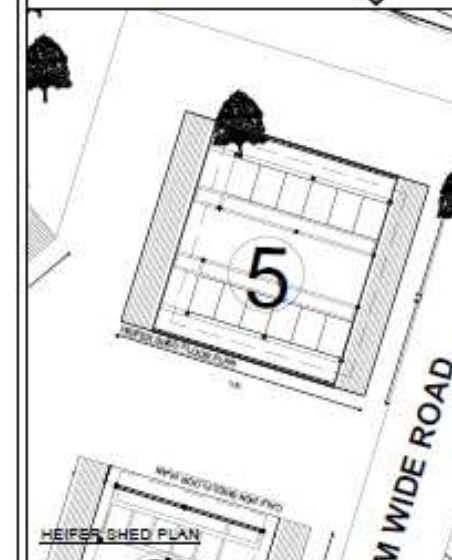
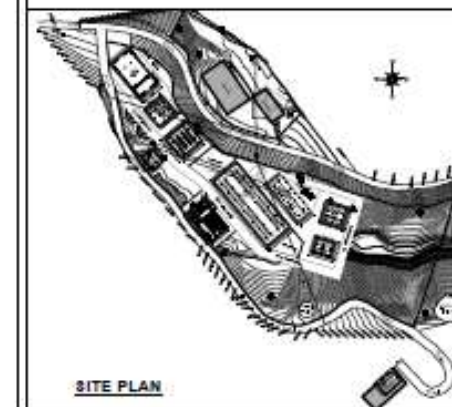


HEIFER SHED FLOOR PLAN



HEIFER SHED ROOF PLAN

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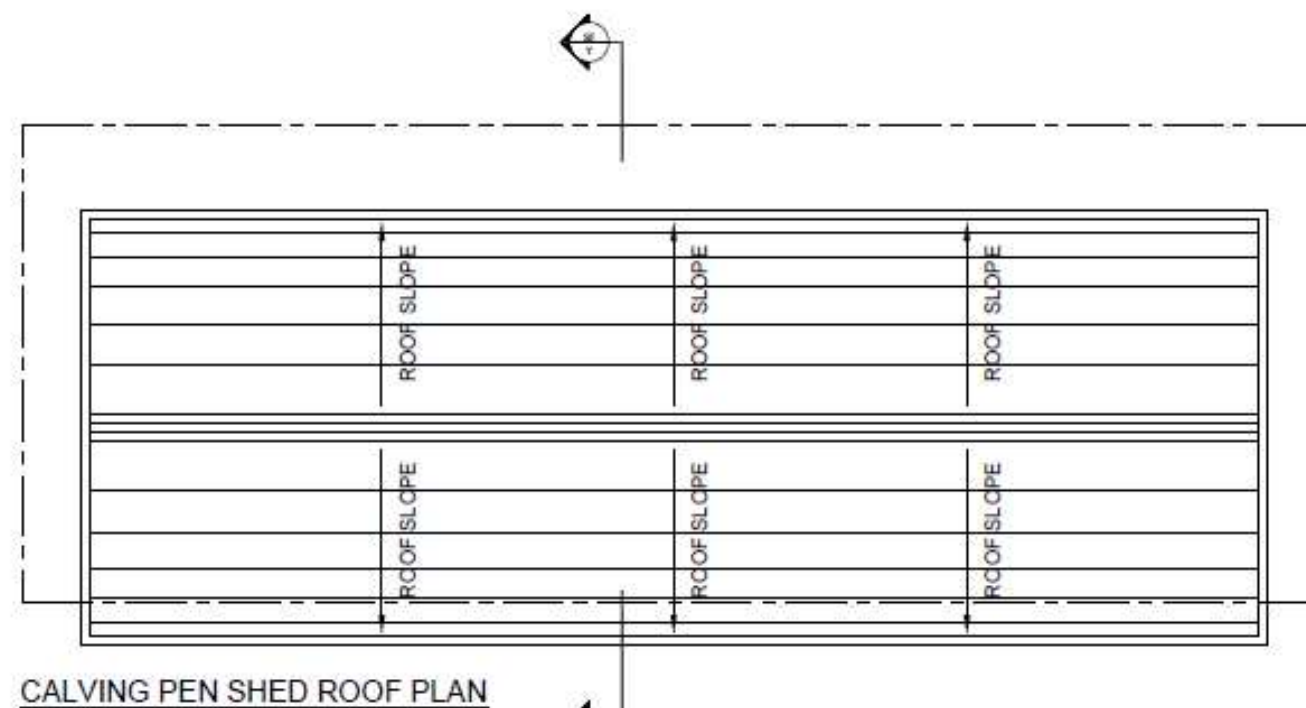
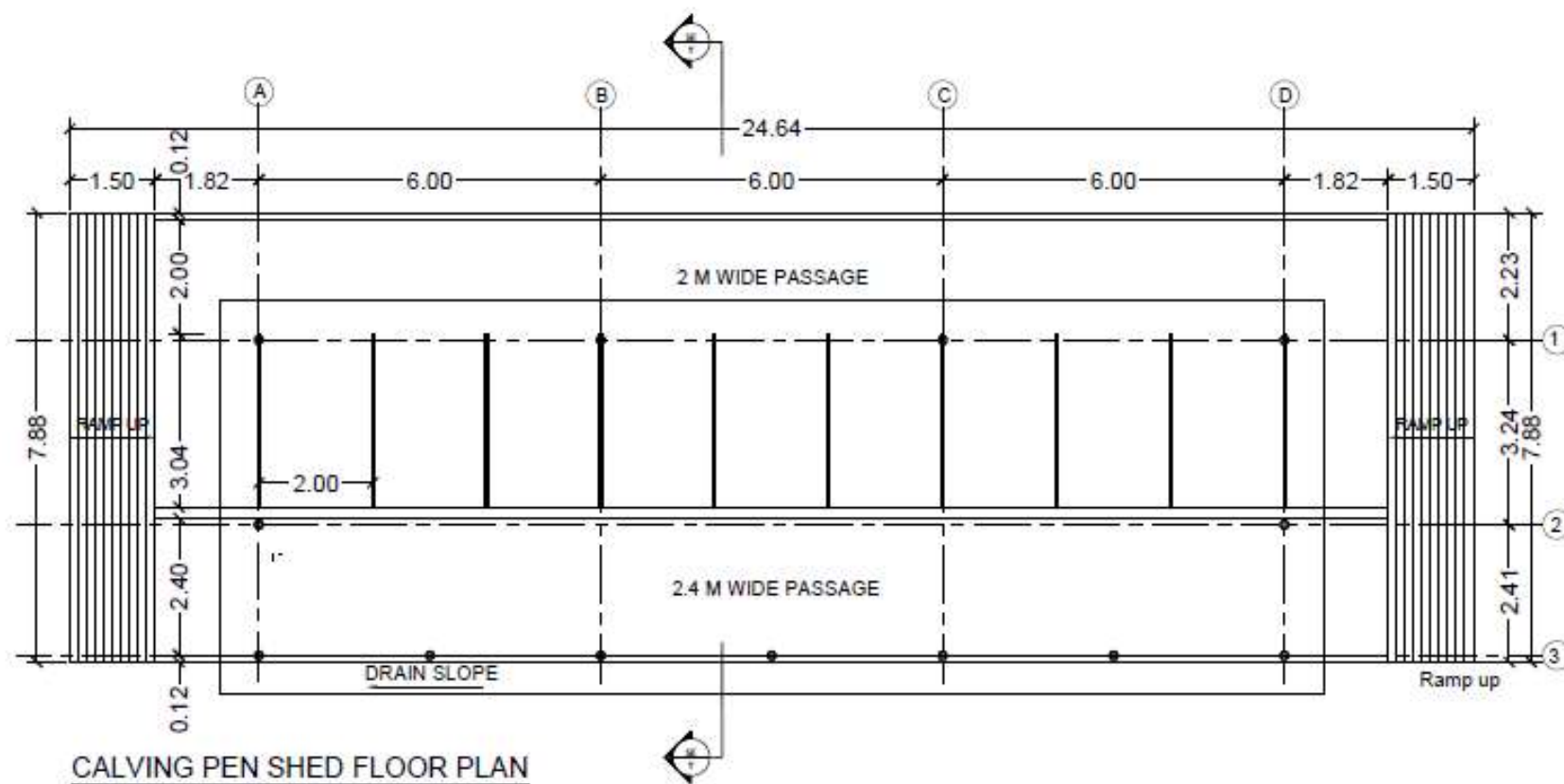
REVISION NO.	REVISION DESCRIPTION	REV. DATE
01	REVISION AS PER INPUTS RECEIVED AFTER DESIGN MEETING AND SITE VISIT DATED 18-03-24	18-03-24
02	REVISION AS PER INPUTS RECEIVED AFTER DESIGN MEETING AND SITE VISIT DATED 24-03-24	24-03-24

HEIFER SHED FLOOR PLAN
GOVERNMENT OF HIMACHAL PRADESH
 HP LIVESTOCK & POULTRY DEVELOPEMENT BOARD
 CONSERVATION AND PROPAGATION OF HIMACHALI
 PAHARI CATTLE, AT BAGTHAN, DISTRICT SIRMOUR, H.P.

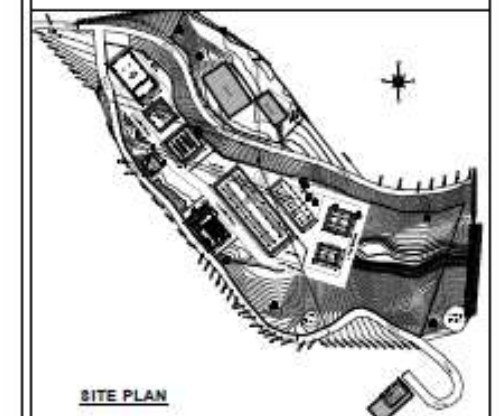
CONSULTANT
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 CORPORATE OFFICE : 79-C, INSTITUTIONAL AREA,
 SECTOR - 18, GURGAON (HARYANA)

DATE : 20/11/2023 DWG-ARCHBUILDING-P/BAGTHAN/AR-01

9.11 Drawing 8: Calving Pen Shed



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01	REVISION AS PER INPUTS RECEIVED AFTER REVISION MEETING AND SITE VISIT DATED 16-03-23	16-03-2023
02	REVISION AS PER INPUTS RECEIVED AFTER REVISION MEETING AND SITE VISIT DATED 24-03-24	24-03-2024

CALVING PEN SHED FLOOR PLAN

GOVERNMENT OF HIMACHAL PRADESH

HP LIVESTOCK & POULTRY DEVELOPEMENT BOARD

CONSERVATION AND PROPAGATION OF HIMACHALI PAHARI CATTLE, AT BAGTHAN, DISTRICT SIRMOUR, H.P.

CONSULTANT

WAPCOS (P) LTD.

WATER AND POWER CONSULTANCY SERVICES (P) LTD.

CORPORATE OFFICE : 76-C, INSTITUTIONAL AREA, SECTOR - 18, GURGAON (HARYANA)

DATE : 20/11/2023

DWG. ARCH/BLDG/HP/BAGTHAN/01

9.12 Drawing 8: Bull Shed

