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Government of India
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Central Public Works Department
NOTICE INVITING e-TENDERS

NIT No.	: 01/EE&SM/FPD/2026-27
Name of Work	: Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.
Estimated Cost	: Rs.95,71,668/- (Rs 80,94,612/- (Civil) + Rs. 14,77,056/-(Elect))
Earnest Money	: Rs. 1,91,433/- in favour of Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD
Performance Guarantee	(a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (Whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
Completion Period	: 04 (Four) Months
Last Date & Time of Bid Submission	: Up to 15:00 Hrs. on 27.10.2026
Date & Time of Opening of Bid	: At 15:30 Hrs. on 27.10.2026

Executive Engineer & Senior Manager
Faridabad Project Division, CPWD
Block-I, CGO Complex, NH-IV, NIT, Faridabad- 121001
Phone: 0121-2421330, Email: eecumsm.fpd@gmail.com

INDEX

NAME OF WORK: Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.

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Amount of Civil component Rs. 80,94,612/-, Amount of Elect. component Rs. 14,77,056/-
Total - Rs.95,71,668/-

Assistant Engineer (E)
Faridabad Project Elect. Division
CPWD, Faridabad

Executive Engineer & Senior Manager (E)
Faridabad Project Elect. Division
CPWD, Faridabad

Assistant Engineer (C)
Faridabad Project Division
CPWD, Faridabad

Executive Engineer & Senior Manager (C)
Faridabad Project Division
CPWD, Faridabad

This NIT amounting to ₹ 95,71,668/- (Rupees Ninety-Five Lakhs, seventy-one thousand six hundred sixty-eight only) is hereby approved which contains pages from page no. 1 to page no.136.

Executive Engineer & Senior Manager (C)
Faridabad Project Division
CPWD, Faridabad

Part-I: GENERAL INFORMATION

NOTICE FOR ONLINE BIDS

The Executive Engineer & Senior Manager (C), Faridabad Project Division, Central Public Works Department, Faridabad (Mobile: 9540768446, Email ID eecumsm.fpd@gmail.com) on behalf of the President of India invites online bids (on Percentage rate) from Eligible CPWD enlisted contractors of appropriate class in Building & Roads (erstwhile Composite/Building/Infrastructure) Category in single bid system for the following work:

NIT No.	: 01/EE&SM/FPD/2026-27
Name of Work	: Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.
Estimated Cost	: Rs.95,71,668/- (Rs 80,94,612/- (Civil) + Rs. 14,77,056/- (Elect))
Earnest Money	: Rs. 1,91,433/- in favour of Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD
Completion Period	: 04 (Four) Months
Last Date & Time of Bid Submission	: Up to 15:00 Hrs. on 27.10.2026
Date & Time of Opening of Bid	: At 15:30 Hrs. on 27.10.2026

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING

The Executive Engineer & Senior Manager (C), Faridabad Project Division, Central Public Works Department, Faridabad (Mobile: 9540768446, Email ID eeumsm.fpd@gmail.com) on behalf of the President of India invites online bids (**on percentage rate**) from Eligible CPWD enlisted contractors of appropriate class in Building & Roads (erstwhile Composite/Building/Infrastructure) Category in single bid system for the following work:

NIT No.	01/EE&SM/FPD/2026-27
Name of Work	Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF..
Location	Nuh, Haryana
Estimated Cost put to Tender	Rs.95,71,668/- (Rs 80,94,612/- (Civil) + Rs. 14,77,056/-(Elect))
Earnest Money	Rs. 1,91,433/- (Rs. One Lakh Ninety-One Thousand Three Hundred Seventeen Only)
Period of Completion	04 (Four) Months
Last Date & Time of Submission of Bid	Up to 15:00 Hrs. on 27.10.2026
Time and date of Opening of Bids	At 15:30 Hrs. on 27.10.2026

* To be filled by Executive Engineer & Senior Manager

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of conceptual plans, specifications, schedule of quantities of various types of items to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website

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AE(C)

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<https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.

4. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Banker's Cheque or Fixed Deposit Receipts or/ and Bank Guarantee including e- Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/ AE), CPWD and other documents as specified.
5. Those Bidders who are not registered or have not updated their profile on the website mentioned above, are required to get registered / update their profile beforehand. The necessary training materials including the videos with step-to-step process are available on download section of <https://etender.cpwd.gov.in>.
6. The intending bidder must have valid digital signature certificate with encryption key (combo type) to perform any operations/transactions on the e-tendering portal / website and the bidder should download and install the eMSigner on their system as per instruction available on download section of <https://etender.cpwd.gov.in>.
7. On opening date & time, the Bidder can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.
8. Bidder can upload documents in the form of **JPG** format and **PDF** format.
9. Bidder must ensure to quote rate. The column meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (Zero).

However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the lowest amount of the tender or any section/sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

10. Compulsory ERP Training:

The Existing enlisted contractor either himself or his/her authorised representative shall take compulsory ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD. Training will be valid only when participants are registered and certificate issued through LMS (Learning Management System) in ERP.

The enlisted contractor will not be allowed to participate in the tendering process without uploading the certificate of the above training.

The newly enlisted contractor or his/her authorized representative shall take compulsory ERP training within Ninety (90) days of the date of issue of enlistment order, after which they will not be allowed to participate in tendering process without uploading the training certificate. The enlisted contractors may contact any of the CPWD Regional Training Institutes or NCA Ghaziabad or the Director (O&T), ERP Unit CPWD Headquarter for training purpose.

List of Documents to be scanned and uploaded within the period of Bid submission:

- i. Copy of receipt for deposition of original EMD to division office of any EE, CPWD. Scanned copy of original Bank Guarantee including e-Bank Guarantee of any commercial Bank against EMD.
- ii. Scanned copy of original Insurance Surety Bond/Demand Draft/ Account Payee Banker's Cheque / FDR/ Bank Guarantee including e-Bank Guarantee of any commercial Bank against EMD. EMD shall be made / issued only from the account of the bidder / tenderer submitting the bid/tender. EMD made/ issued from the account other than that of the bidder/ tenderer submitting the bid, shall not be accepted.
- iii. Enlistment Order for CPWD Contractors who are enlisted in appropriate Class of Building & Roads Category. (The enlisted contractors of class-II and above can tender within their tendering limit for works all over the country irrespective of jurisdiction of the enlisting authority. The tendering limit is uniform all over India. Enlisted contractors of class-III, IV and V can tender within their tendering limit for works in the region of enlisting authority only. Enlisted contractors of class-III, IV and V can participate in tenders within the jurisdiction as detailed in table-9 of enlistment rule-2026 as per their tendering limit for CPWD works, or as amended from time to time. Enlisted contractors of any class shall also have to meet the other requirements of eligibility as per NIT conditions.).
- iv. GST registration Certificate *as applicable*, if already obtained by the bidder.

If the bidder has not obtained GST registration *as applicable*, then he shall scan and upload following undertaking along with other bid documents:

“If work is awarded to me, I/we shall obtain GST registration Certificate, *as applicable*, within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by CPWD or GST department in this regard.”
- v. Compulsory ERP Training Certificate for existing enlisted contractor and for newly enlisted contractor undertaking for compulsory ERP training within Ninety (90) days of the date of issue of enlistment order.
- vi. Undertaking on structural stability and soundness as per prescribed format Form ‘F’.
- vii. Any other document as specified in the Bid document.

CPWD-6 FOR e-TENDERING

1. The **Percentage Rate Bids** are invited on behalf of the President of India from Eligible CPWD Enlisted Contractors of appropriate class in Building & Roads category for the work of “Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.”

The enlistment of the CPWD Contractors should be valid on the last date of submission of bids.

In case the last date of submission of bids is extended, the enlistment of contractor *should be valid on the original date of submission of bids*.

The work is estimated to **cost** Rs.95,71,668/- (Rs 80,94,612/- (Civil) + Rs. 14,77,056/- (Elect)) This estimate, however, is given merely as a rough guide.

2. Agreement shall be drawn with the successful bidder on prescribed Form No. **CPWD-7** (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **04 (Four) Months** from the date of start as defined in schedule ‘F’ or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. (i) The site for the work is available.
(ii) The architectural and structural drawings, if any shall be prepared by the contractor.
5. The bid document consisting of the schedule of quantities of various items to be executed and other necessary documents except Standard General Conditions of Contract Form can be seen from website <https://etender.cpwd.gov.in> free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted, then the bid submitted earlier shall become invalid.
8. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

9. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted, then the bid submitted earlier shall become invalid.

10. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e- Bank Guarantee (for the balance amount as prescribed) from any of Commercial Banks (drawn in favour of **Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD**) shall be scanned and uploaded to the e-tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of Earnest Money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs.20 lacs, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee including e- Bank Guarantee of any Commercial Bank having validity for a period of **90 days** or more from last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The Earnest Money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of bid of the successful bidder, whichever is earlier. However, in case of two/three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. shall be returned within 30 days of declaration of result of technical bid evaluation.

Copy of Enlistment Order and other documents as specified in the bid document shall be scanned and uploaded on the e-tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in the bid document shall have to be submitted by *the lowest bidder* along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of tender inviting authority.

Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.

The bid submitted shall be opened at **03:30 PM on 27.10.2026.**

11. The bid submitted shall become invalid and e-tender processing fee (if applicable) shall not be refunded if:

(i) The bidder is found ineligible.

(ii) The bidder does not upload scanned copy of all the documents stipulated in the bid document.

- (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
 - (iv) If a tenderer quotes nil rates or does not quote any percentage above/below on the total amount of the tender or any section/sub-head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
12. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in Schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.

The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident fund code no. if applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

13. The description of the work is as follows:
- “Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.”

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder 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 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 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.

14. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
15. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
16. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
17. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). 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 gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
18. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
19. The bid for the work shall remain open for acceptance for a period of **30 (thirty) days** from the date of opening of bid.
 - (i) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department **within 7 days** after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

- (ii) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department **after expiry of 7 days** after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
- (iii) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.
20. This notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid 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 Bid, all the documents including Additional Conditions, Specifications and Drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the Rates quoted online at the time of submission of Bid and Acceptance thereof together with any correspondence leading thereto.
- (ii) Standard **CPWD Form-7** or other Standard CPWD Form as mentioned.

21. For Composite Bids

21.1.1. The Executive Engineer in charge of the Major Component will call bids for the Composite work. The cost of bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite bid.

21.1.2. The Bid document includes following Components:

Part-I: GENERAL INFORMATION - Notice for Online Bids, Information & Instructions for Bidders for e-Tendering, CPWD-6 for e-Tendering.

Part-II: ELIGIBILITY BID - Brief of Work, Information & Guidelines for Bidders, Proformas for Information Regarding Eligibility (BG for EMD/PG etc.)

Part III: FINANCIAL BID -

Section-A: Tender Form, Schedules A to F and General Conditions of Contract

Section-B: Associate Specialized Agencies

Section-C: Additional Conditions & Specifications and for Civil Works (Major Component)

Section-D: Additional Conditions & Specifications for E&M Works (Minor Component)

Section-E: Schedule of Quantities & Price Bid

Section-F: Site Location Map

20.1.3 The bidders must associate himself, with agencies as per NIT conditions.

20.1.4 The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.

20.1.5 After acceptance of the bid by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of the President of

India. After the work is awarded, the main contractor will have to enter into one agreement with EE in charge of major component and has also to sign two or more copies of agreement depending upon number of EE's/DDH in charge of minor components. One such signed set of agreement shall be handed over to EE/DDH of minor component(s).

EE of major component will operate the agreement in general. EE/DDH in charge of minor component(s) shall operate relevant parts of the agreement pertaining to respective minor components of the work.

20.1.6 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.

20.1.7 Security Deposit will be worked out separately for each component corresponding to the tendered cost of the respective component of works.

20.1.8 The main contractor has to associate agencies for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of relevant component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of relevant component(s).

20.1.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of relevant specialized component(s).

The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

20.1.10 The main contractor has to enter into MoU with agency(s) associated by him. Copy of such MoU shall be submitted to EE/ DDH in charge of each relevant component as well as to EE in Charge of major component. In case of change of associate contractor, the main agency(s) has to enter into MoU/agreement with the new contractor associated by him.

20.1.11 Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer- in-charge of the discipline of minor component directly to the main contractor. The CMB shall be maintained independently by Engineer-in-Charge of major and minor components.

20.1.12A The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.

20.1.12B Final bill of whole work shall be finalized and paid by EE of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill

for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.

- 21 The intending bidders are required to update their profile in CPWD e- tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile to uploading tender can be resolved through the concerned Executive Engineer & Senior Manager (C) or ERP help line no. 18001803286 or e-mail ID cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.
- 22 Price Preference to Contractor belonging to SC/ST for Award of work: Price preference in quoted item rate/percentage rate tender shall be applicable to the individual enlisted/non-enlisted SC/ST contractor as under:-
- (i) For works upto and equal to an estimated cost of Rs. 2.80 lakh, a price preference upto 5% (with reference to the lowest valid price bid) may be allowed in favor of individual SC/ST contractor. In such cases tender may be entertained even from non-enlisted SC/ST contractors. No earnest money is required in such cases.
 - (ii) For works beyond an estimated cost of Rs. 2.80 lakh and upto and equal to estimated cost of Rs. 6.40 lakh, tenders may be invited only from CPWD enlisted contractors. The price preference upto 5 % (with reference to the lowest valid price bid) may be allowed in favour of individual SC/ST Contractor. However, earnest money at a reduced rate of ½% may be accepted in such cases. In all such cases, the above concession shall be allowed only after proper verification of the individual contractor's claim of belonging to SC or ST community, as the case may be.

Part-II: ELIGIBILITY BID

SECTION-I

BRIEF PARTICULARS OF THE WORK

1. Salient details of the works for which bids are invited are as under

Sr. No.	Name of work	Estimated cost	Period of completion
1	Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF..	Rs. 95,71,668/-	04 months

2. The work is situated at Indri Village, Nuh, Haryana.
3. General features and major components of the work are as under: -
- Installation of porta cabin (2 Room with 3 toilets and 3 bathrooms with Tile flooring).
 - Boring of Tubewell.
 - Fencing of boundary of RCC post with wire including MS Gate.
 - Geotechnical investigation.
 - Sewerage arrangement.
 - Footpath of CC paver block with Kerb stone.
 - Internal Water Supply, Sanitary Installations, Internal & External Electrical Works, etc.
 - Topographical survey with calculation of plot area and Measurement of Land

Following information is also to be provided along with Digitized site survey plan require: -

- Plot boundaries along with angles & diagonals, total plot area, position of existing structure or and permanent mark such as well, tree, path with their dimension width etc, adjoining structure within 20ft of boundaries showing height of the same.
- All road, abutting to the site together with their width, levels, their berms and importance with regards to traffic etc.
- Direction of north as also the general prevailing wind direction in the deferent part of the year, average rainfall during the year.
- All services available in the localities such as municipal sewer, water supply, electric supply etc.
- Any other information pertaining to the nature of the soil and its capacity or zone falling in the seismic area etc may be given.

- Coordinates of site, site elevation (in AMSL), HT/LT electrical lines, trees name and girth of trees, underground bulk services if any.
 - Connectivity to the site State & connecting highway at site, village road, panchayat/revenue Rasta adjoining to site etc.
 - All local material for construction together with their use in local practice and mode of construction with regard to walling, roofing and general finishes.
4. Work shall be executed according to General Conditions of Contract for Central P.W.D. Works available separately at printer's outlets. The bidder may obtain the address of the outlets from the Executive Engineer

SECTION-II

INFORMATION AND GUIDE-LINES FOR BIDDERS

1.0 General:

- 1.1 Letter of Transmittal and Forms for deciding Eligibility are given in Section III.
- 1.2 All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant column. Even, if no information is to be provided in a column, a 'nil' or 'no such case' entry should be made in that column. If any particulars/query is not applicable in case of the bidder, it should be stated as 'Not applicable'. The bidders are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms (or) deliberately suppressing the information may result in the bid being summarily disqualified. Bid made by telegram or telex and those received late will not be entertained.
- 1.3 References, information and certificate from the respective clients certifying suitability, technical knowledge or capability of the bidder should be signed by an officer not below the rank of Executive Engineer or equivalent.
- 1.4 The bidder may furnish any additional information, which he thinks is necessary to establish his capabilities to successfully complete envisaged work. He is, however advised not to furnish superfluous information.
- 1.5 No information/documents shall be entertained after submission of bid unless it is required to clarify the query raised by Employer. No fresh/revised mandatory document is permitted at this stage.

2.0 Definitions:

- 2.1 In this document the following words and expression have their meaning here by assigned to them.
- 2.2 EMPLOYER means the President of India, acting through Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, Block-I, CGO Complex, NH-IV, NIT, Faridabad - 121001
- 2.3 BIDDER/AGENCY means the individual, proprietary firm, firm in partnership, limited company (private or public) or corporation.
- 2.4 "YEAR" means "Financial year" unless stated otherwise.
- 2.5 USER/CLIENT/OWNER Means CISF (Central Industrial Security Force) represented by its authorized persons.
- 2.6 Terms used for Engineer in charge like EE, Executive Engineer, Executive Engineer & Senior Manager are one and same thing.
- 2.7 The 'site' shall mean the land/ or other places on, in, into or through which the work is to be executed under the contract or any adjacent land, path or street through which the work is to be executed under the contract, or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
- 2.8 The Contract means the documents forming the Bid and acceptance thereof and the formal agreement executed between the competent authority on behalf of The President of India and the successful bidder, together with the documents referred to therein

including the general conditions, correspondence with bidder 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.

3.0 Method of Application:

- 3.1 If the bidder is an individual, the application shall be signed by him above his/her full type written name and current address.
- 3.2 If the bidder is a proprietary firm; the application shall be signed by the proprietor above his/her full type written name and the full name of his firm with its current address.
- 3.3 If the bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full type written names and current addresses or alternatively by a partner holding power of attorney for the firm. In the later case a certified copy of the power of attorney should accompany the application. In both the cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.
- 3.4 If the bidder is a limited company or a corporation, the bid shall be signed by a duly authorized person holding power of attorney for signing the application and certified copy of such power of attorney shall also be furnished. The bidder should also furnish a copy of memorandum of articles of association duly attested by a Public Notary.

4.0 Final Decision-Making Authority:

The Employer reserves the right to accept or reject any bid and to annul the process and reject all bids at any time without assigning any reason or incurring any liability to the bidders.

5.0 Particulars – Provisional:

The particulars of the work given in Section - I are provisional. They are liable to change and must be considered only as advance information to assist the bidder.

6.0 Site Visit:

The bidder is advised to visit the site of work, at his own cost, and examine it and its surroundings to himself collect all information that he considers necessary for proper assessment of the prospective assignment.

7.0 Award criteria:

- 7.1 The employer reserves the right, without being liable for any damages or obligation to inform the bidder to :
 - (a) Amend the scope and value of contract to the bidder.
 - (b) Reject any or all the applications without assigning any reason.
- 7.2 Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.

SECTION-III
PROFORMA FOR INFORMATION REGARDING ELIGIBILITY

RECEIPT OF DEPOSITION OF ORIGINAL EMD

Receipt No.....#..... /Date.....#.....
Name of Work: Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF. 1. NIT No. : 01/EE&SM/FPD/2026-27 2. Estimated Cost: Rs.95,71,668/- (Rs 80,94,612/- (Civil) + Rs. 14,77,056/-(Elect)) 3. Amount of Earnest Money Deposit : Rs. 1,91,433/- 4. Last date of submission of Bid : Upto 15.00 Hrs. on 27.10.2026
1. Name of Contractor:#..... 2. Form of EMD #..... 3. Amount of Earnest Money Deposited.....#..... 4. Date of submission of EMD # Signature, Name and Designation of EMD receiving officer (EE/AE(P)/AE/AAO) with Officer stamp

(# to be filled by EMD receiving EE/AE/AAO as the case may be)

On non- Judicial stamp paper of minimum Rs. 100

(Guarantee offered by Bank to CPWD in connection with the execution of contracts)

**Form of Bank Guarantee for Earnest Money Deposit /Performance
Guarantee/Security Deposit/Mobilization Advance/ Refund of milestone withheld
amount**

1. Whereas the Executive Engineer (name of division) CPWD on behalf of the President of India (hereinafter called "The Government") has invited bids under (NIT number). dated for (Name of Work) The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. (Rupees only) valid up to (date)*..... as *Earnest Money Deposit* from (name and address of the contractor) (herein called "the Contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

Whereas the Executive Engineer (name of division), CPWD on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing number with(name and address of the contractor) (hereinafter called "the Contractor") for execution of work..... .. (name of work) The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. (Rupees only) valid up to (date)..... as *Performance Guarantee / Security Deposit / Mobilization Advance* from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, ... (indicate the name of the bank) (herein after referred to as "the Bank"), hereby undertake to pay to the Government an amount not exceeding Rs. (Rupees only) on demand by the Government within 10 days of the demand.
3. We, ... (indicate the name of the bank), do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor. 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 Rs (Rupees only).
4. We, ... (indicate the name of the Bank), further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee 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
5. We, ... (indicate the name of the Bank), further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under 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 Government 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 of omission on the part of the Government or any indulgence by the Government 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. We, ... (indicate the name of the Bank), further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor
8. We, ... (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs..... (Rupees only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date

Witnesses:

- | | |
|------------------|----------------------|
| 1. Signature | Authorized signatory |
| Name and address | Name |
| | Designation |
| | |
| 1. Signature | Staff code no. |
| Name and address | Bank seal |

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for Earnest money / Performance Guarantee / Security Deposit / Mobilization Advance, as the case may be.

UNDERTAKING ON STRUCTURAL STABILITY AND SOUNDNESS OF ALREADY COMPLETED BUILDINGS AND INFRASTRUCTURE PROJECTS

I/we undertake and confirm that any building / infrastructure constructed by our firm /partnership firm/ company has not suffered any failure, making it unfit for intended use, either due to structural design and defects or due to use of sub-standard materials or execution of sub-standard work, poor workmanship or any other reason during the last 25 (twenty five) years.

I/we, further, undertake that if such information comes to the notice of CPWD, then Engineer-in-Charge shall be free to terminate the bid/agreement and to forfeit the entire amount of earnest money deposit, performance guarantee and security deposits.

I/we, also undertake that in addition to above, the Engineer-in-Charge shall be free to debar us forever from tendering in CPWD.

The decision of Engineer-in-Charge or any higher authority shall be final and binding.

Signature of
Notary with seal

Signature of bidder or an authorized person of the
firm with stamp

Note: Affidavit to be furnished on a 'Non-judicial' stamp paper of Rs. 200/- (scanned copy of the notarized affidavit to be uploaded at the time of submission of bid).

Part-III: FINANCIAL BID

**Section-A: Tender Form, Schedules A to F and
General Conditions of Contract**

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT**

PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the work of “Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.”

- (i) To be submitted / uploaded up to **15:00 Hrs. on 27.10.2026** on website: <https://etender.cpwd.gov.in>
- (ii) To be opened in the presence of bidders who may be present at 15:30 Hrs. on 27.10.2026 in the office of the **Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, Block-I, CGO Complex, NH-IV, NIT, Faridabad- 121001**

TENDER

I/We have read and examined the notice inviting tender, schedule-A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of contract, Special conditions, Schedule of Rate & other documents and rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule ‘F’ viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 in General Rules and Directions and in Clause-11 of the Conditions of Contract and with such materials as provided for, by, and in respect of accordance with, such conditions so far as applicable..

I/We agree to keep the tender open for **30 (thirty) days** from the date of its opening of single bid system.

I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document.

A copy of Earnest Money deposit of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker’s Cheque or Bank Guarantee including e- Bank Guarantee (as prescribed) issued by a commercial Bank, is scanned and uploaded (*strike out as the case may be*). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors,

in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely.

Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely, the said performance guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12 of the tender form. Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/we undertake and confirm that eligible similar work(s) has/have not been got executed through another agency on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of Earnest Money Deposited/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents, drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety and integrity of the State.

Dated:

Signature of Contractor

Postal Address:

Witness:

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs.....
..... (Rupee.).

The letters referred to below shall form part of this contract agreement:

- (a)
- (b)
- (c)

(For & on behalf of President of India)

Dated:

Signature.....

Designation.....

SCHEDULES A TO F

SCHEDULE 'A'

Schedule of quantities for the Work : As per separate sheets attached

SCHEDULE 'B'

Schedule of material to be issued to the Contractor : NA

SCHEDULE 'C'

Tools and Plants to be hired to the Contractor : NA

SCHEDULE 'D'

Extra schedule for specific requirements/documents for the work, if any: NA

SCHEDULE 'E'

Reference to General Conditions of Contract: General Conditions of Contract - 2023 (**Construction work**) as amended / modified up to the last date of submission of bids.

Name of Work: "Construction/Installation of Porta Cabin, Geotechnical investigation, Topographical survey, Plot fencing, Tube wells including Internal Water Supply, Sanitary Installations, Internal & External Electrical Works, etc. for CISF at Indri Village, Nuh, Haryana."

Estimated cost of work: Rs.95,71,668/- (Rs 80,94,612/- (Civil) + Rs. 14,77,056/-(Elect))

(i)	Earnest Money	Rs. 1,91,433/- (to be returned after receiving Performance Guarantee)
(ii)	Performance Guarantee	(a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (Whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
(iii)	Security Deposit	2.5% of the accepted tendered value of the work or 2.5% of tendered value plus 50% of PG for contracts involving maintenance of the building and services/ other work after construction of same building.

SCHEDULE 'F'

General Rules & Directions:

Officer inviting Tender: Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, Block-I, CGO Complex, NH-IV, NIT, Faridabad- 121001

Definitions:

1 (i)	Engineer-in-Charge	Major Component (Civil Works): Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, or successor thereof Minor Component (E&M Works): Executive Engineer & Senior Manager (E), Faridabad Project Electrical Division, CPWD or successor thereof
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AE (E)

EE&SM(E)

AE(C)

EE&SM(C)

(ii)	Accepting Authority	Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, or successor thereof as per competency.
(iii)	Percentage on cost of materials and Labour to cover all overheads and profits	15%
(iv)	Standard Schedule of Rates	Delhi Schedule Rates 2023 & Market rate with upto date correction slip as below: Civil Works: Delhi Schedule of Rates 2023 (Vol. 1 & 2) with up-to-date correction slips modified as per cost index of Delhi NCR Horticulture Works: Delhi Schedule of Rates, Analysis of Rates and Specifications (Horticulture & Landscaping) - 2025 with up-to-date correction slips modified as per cost index of Delhi NCR E&M Works: Delhi Schedule of Rates 2022 (E&M) with up-to-date correction slips modified as per cost index of Delhi NCR
(v)	Department	Central Public Works Department (CPWD)
(vi)	Standard CPWD Contract Form:	CPWD Form-7 and General Conditions of Contract-2023 (Construction work) as amended / modified up to the last date of submission of bids

Clause-1:

(i)	Time allowed for submission of Performance Guarantee, programme chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.	07 (Seven) days
(ii)	Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above	07 (Seven) days

Clause-2:

(i)	Authority for fixing compensation under clause 2	Chief Engineer & Executive Director, Gurugram Project Zone, CPWD or successor thereof
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Clause-5:

(i)	Authority to convey the decision of shifting of milestone and extension of time. (Engineer-in-Charge or Engineer-in-Charge of Major Component in case of Composite Contracts, as the case may be)	Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, or successor thereof
(ii)	Authority to decide rescheduling of milestone and extension of time.	Chief Engineer & Executive Director, Gurugram Project Zone, CPWD or successor thereof
(iii)	Shifting of date of start in case of delay in handing over of	Chief Engineer & Executive

AE (E)

EE&SM(E)

AE(C)

EE&SM(C)

	site.	Director, Gurugram Project Zone, CPWD or successor thereof
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Time allowed for completion of work: - **04 (Four) Months**

Number of days from the date of issue of letter of acceptance for reckoning date of start: - **10 days**

TABLE OF MILE STONES

S. No.	Description of milestone (Financial)	Time allowed in months (from stipulated date of start in months)	Amount to be withheld of in case non achievement of milestone
1.	50% work done as per financial target	2 months	2.5% of accepted tendered value
2.	Full work	4 months	2.5% of accepted tendered value
Note: The withhold milestone will only be released when subsequent milestone is achieved within the specified time.			

1. Withheld amount shall be released if and when subsequent milestone is achieved within respective time specified. However, in case milestones are not achieved by the Bidder for the work, the amount shown against milestone shall be withheld.
2. Intending bidder may submit phasing of activities/milestones based on their resources and methodology at the time of bidding corresponding to physical milestones/stages indicated in the above table. These shall be formed part of the agreement after approval of the accepting authority, otherwise it would be assumed that agency agrees with the above-mentioned physical milestones.

Recovery for delay in submission of Monthly Progress Report: Monthly recovery for delay in submission of the monthly progress report within specified period: **Rs. 5000/- per day (not exceeding Rs. 50000/- per month)**

Schedule of handing over of Site:

Part	Portion of site	Description	Time period for handing over reckoned from date of issue of letter of intent
Part A	Portion without any hindrance	NA	The site for the work is available.
Part B	Portions with encumbrances	NA	
Part C	Portion dependent on work of other agencies	NA	

Clause 6 :- Mode of measurement: CMB**Clause-7:**

Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	Major Component (Civil Work)	Rs. 25.00 Lakh
	Minor Component (E&M Work)	Rs. 03 Lakh

Note: However, to expedite the progress of work, Engineer-in-Charge, on the request of contractor, may make interim payment(s) even before the net payment limit specified in schedule 'F' is achieved. In such case(s) no interest / compensation shall be recoverable from contractor. Such payment by Engineer-in-Charge shall not be construed as waiver of limit specified in schedule 'F' for subsequent interim payment(s)

Clause-7A:

AE (E)	EE&SM(E)	AE(C)	EE&SM(C)
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Whether Clause 7A shall be Applicable	Yes, No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable as submitted by the Bidder to the Engineer-in Charge.
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Clause 8: Competent Authorities to inspect and issue part/final completion certificate:

Executive Engineer & Senior Manager (C), Faridabad Project Division, CPWD, or
successor thereof

&

Executive Engineer & Senior Manager (E), Faridabad Project Electrical Division, CPWD
or successor thereof

Clause-10A: Not Applicable

Clause-10B

Whether Clause shall be Applicable	Yes
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Clause-10C: Applicable

Component of labour expressed as percent of value of work: - **25%**

Clause-10CC: Not Applicable

Clause-11:

Specifications to be followed for execution of work:	
Civil work	CPWD Specifications 2019 Vol. 1 and Vol. 2 or latest version of above specifications as issued / amended up to last date of tender submission
E&M Work	CPWD General Specifications for Electrical Works (Part I for Internal) - 2023, (Part II for External) – 2023 or latest version of above specifications as issued / amended up to last date of tender submission
Horticulture	CPWD Specifications 2025 (Horticulture & Landscaping) with up to date correction slips.
All above shall hereinafter to be collectively referred to as ' CPWD Specifications '	

Clause-12: Type of Work: - **Original Work**

12.3	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for contract items.	100%.
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Clause-16:

Competent Authority for deciding reduced rates:	
Civil work	Chief Engineer & Executive Director, Gurugram Project Zone, CPWD or successor thereof

Clause-19:

Clause 19C: Rs.1000/- for each default	Authority to decide penalty for each default: Executive Engineer & Senior Manager (C), Faridabad Project
Clause 19G: Rs.1000/- for each default and Enhanced penalty 1000 per day for continuous default	
Clause 19D: Rs.1000/- for each default per day (subject to max	

AE (E)

EE&SM(E)

AE(C)

EE&SM(C)

5% of ECPT)	Division, CPWD or his successor thereof
Clause 19K: Rs.500/- per tradesman per day	

Clause-25:

(i)	Conciliator	Special Director General (Chandigarh), CPWD or Successor thereof
(ii)	Arbitrator Appointing Authority	Chief Engineer & Executive Director, Gurugram Project Zone, CPWD or successor thereof
(iii)	Place of Arbitration	New Delhi or Gurugram

Clause-32:**Requirement of Technical Representative(s) and Recovery Rates:**

S. No.	Requirement of Technical		Minimum Experience (Years)	Designation of Technical Staff	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32(i)
	Qualification	Number of Major + Minor Component)			
1	Graduate Engineer Or Diploma Engineer	01 No. of major component	02 or 05 Respectively	Project Manager cum planning/quality/ Site/billing Engineer	Rs. 15,000/- per Month per person

Note:

- (i) Assistant Engineers retired from Government services, who are Diploma holders will be treated at par with Graduate Engineers. Diploma holder with minimum 10- years relevant experience with a reputed construction company can be treated at par with Graduate Engineers for such deployment subject to the condition that such diploma holders should not be in excess of 50% of requirement of degree engineers.
- (ii) The above given strength shall be required to be deployed as and when necessity arises at site or so directed by Engineer-in-charge.
- (iii) The Bidder 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 account bill/final bill and shall produce evidence of regular physical availability of such engineers on the above project at any times if so, required by the Engineer-in-charge.
- (iv) The Recovery on account of non-deployment of technical staff shall be made by the Engineer in Charge of the respective Discipline / Component.

Clause-38:

i)	Schedule/statement for determining theoretical quantity of cement & bitumen based on Delhi Schedule of Rates	Delhi Schedule of Rates 2023 with Amendments up to the date of submission of bid.
ii)	Variations permissible on theoretical quantities:	
(a)	Cement for works with estimated cost put to tender more than Rs.5 Lakh.	3% Plus/Minus
(b)	Bitumen for all works.	2.5% Plus only and nil on minus side.
(c)	Steel reinforcement and structural steel sections for each diameter, section and category.	2% Plus/minus
(d)	All other materials	Nil

GENERAL CONDITIONS OF CONTRACT – 2023 (CONSTRUCTION)

1. Latest edition of “**General Conditions of Contract - 2023 (Construction)**” as amended / modified up to the last date of submission of bids, which is available in market as CPWD publication and also available on CPWD official website at https://cpwd.gov.in/Documents/cpwd_publication.aspx shall be deemed to be part of the Tender document and Agreement.
2. The GCC is amended from time to time through issue of OMs under series DG/CON which are available on CPWD official website at [http://www.cpwd.gov.in/Documents/Official Circulars/ DG CON](http://www.cpwd.gov.in/Documents/Official_Circulars/DG_CON). These amendments/modifications issued after publication of above GCC and up to last date of submission of Tenders shall be deemed to be part of the Tender document and Agreement.
3. The GCC and its amendments as mentioned above, though not attached with this tender document, shall be deemed to be part of the Tender document and Agreement to be signed with the successful bidder.

Section-B: Associate Specialized Agencies

ASSOCIATE SPECIALISED AGENCIES FOR GEOTECHNICAL INVESTIGATION

1.0 List of Specialized Works (Civil)

The following work are the specialized works for which contractor has to associate specialized agencies to execute the work based on eligibility:

- Geotechnical investigation.

2.0 PROCEDURE FOR EXECUTION OF SPECIALIZED CIVIL ITEMS:

- 2.1 Specialized Items of civil work listed herein below shall be got executed through eligible associated specialized agencies **currently actively engaged** in execution of the said specialized item and fulfil eligibility criteria prescribed in the agreement.
- 2.2 The Contractor(s) shall submit his proposal for the approval of the Engineer-in-Charge, the names of specialized agencies of repute along with their technical capability /experience proposed to be engaged by him. The proposal shall be submitted as early as possible but not later than one month before proposed date of start of execution of such items as per approved work programme.
- 2.3 It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub-contractor(s). No claim of hindrance in the work shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies.

3.0 ELIGIBILITY CONDITIONS FOR SPECIALIZED CIVIL WORKS OF GEOTECHNICAL INVESTIGATION:

- 3.1 The tenderer(s) must associate eligible agencies to execute the specialized works, who fulfil the prescribed eligibility criteria. However, the contractor himself shall also be eligible to carry out any or all of such specialized works without associating any specialized agency provided he fulfils the prescribed eligibility criteria
- 3.2 Eligibility requirement for associate specialized agencies for execution of the specialized civil items shall be as below:
The agency must be **currently actively engaged** in execution of the said specialized item and must have satisfactorily executed **similar works** during last 5 (five) years from date of submission of proposals for approval of associate specialized agency as below:
- (i) Three works (of Geotechnical Investigation) each of value not less than 40% of corresponding estimated cost of the specialized items of the work in the NIT.
- or**
- (ii) Two works (of Geotechnical Investigation) each of value not less than 60% of corresponding estimated cost of the specialized items of the work in the NIT.
- or**
- (iii) One work (of Geotechnical Investigation) not less than 80% of corresponding estimated cost of the specialized items of the work in the NIT.

MEMORANDUM OF UNDERSTANDING (MOU)

Between

M/s.....having his registered office at
..... [Henceforth called the *Main Contractor*] which expression shall unless repugnant to the subject or context include its administrators, successors and assigns.

And

M/s having his registered office at
..... [Henceforth called *Associate Geotechnical Investigation Contractor*] which expression shall unless repugnant to the subject or context include its administrators, successors and assigns.

Whereas, the Central Public Work Department (CPWD), have awarded Contract to the Main Contractor for the work of:” as per Schedule of Quantities, Specifications, Terms and Conditions contained in the Agreement.

Whereas, This Memorandum of Understanding has been entered into for assigning responsibility of execution of (mention category) component of Geotechnical Investigation work forming part of the above work to the Associate Geotechnical Investigation Contractor by the Main Contractor.

Now therefore, it is agreed between the Parties here to as follows:

- 1 Both the parties have gone through and understood the various Terms & Conditions and Clauses of the Contract for the work awarded to the Main Contractor and willingly agree to abide by them.
- 2 The 'Associate Geotechnical Investigation Contractor' will execute (mention category) Component of Geotechnical Investigation Work in the wholesome manner as per Terms & Conditions of the Contract. However, both Parties shall be jointly and severally responsible for the execution of said Component of work as per the Contract.
- 3 It is understood that payment for (mention category) component of Geotechnical Investigation Work even though executed by the Associate Geotechnical Investigation Contractor shall be done by the Department (CPWD) to the Main Contractor as per Terms & Condition of the Contract. The Parties have entered into separate agreement on Terms & Conditions for payment to be made by the Main contractor to the Associate Geotechnical Investigation Contractor for the work done by them. The main Contractor shall promptly make payment to the Associate Geotechnical Investigation Contractor as per agreed Terms & Condition between them. In the event of failure to make due payments to the Associate Geotechnical Investigation Contractor by Main Contractor, the Department (CPWD) may make such payments directly to the Associated Geotechnical Investigation Contractor after deducting the same from Bills payable to the Main Contractor.
- 4 In case of any dispute between Parties, either of them may go for mediation by the Engineer-in-charge. In the event of disagreement with decision of Engineer-in-Charge, either of the Parties may appeal against the mediation to the SE/SE-cum-PD/CE/CE-cum-ED in whose jurisdiction the work falls. His decision shall be final and binding on both Parties.
- 5 The 'Associate Geotechnical Investigation Contractor' shall be liable for disciplinary and penal action(s) as per Contract if he fails to discharge his contractual commitments related to said component of Geotechnical Investigation works.

- 6 All the machinery and equipment, tools and tackles required for execution of (mention category) component of Geotechnical Investigation Work, as per the Contract, shall be the responsibility of the 'Associate Geotechnical Investigation Contractor'.
- 7 The Technical and other site staff required for the said (mention category) component of Geotechnical Investigation Work shall be arranged by the 'Associate Data Centre Contractor' as per terms and conditions of the Contract.
- 8 Site Order Book & other Registers maintained for the said work shall be signed by the Representatives of Main Contractor as well as 'Associate Geotechnical Investigation Contractor' or themselves.
- 9 All the correspondence regarding execution of the (mention category) component of Geotechnical Investigation Work shall be done by the department with the Associate Geotechnical Investigation Contractor with a copy to the Main contractor. In case of non-compliance of the provisions of the Contract, the Main Contractor, as well as the Associated Geotechnical Investigation Contractor shall be responsible and action under Clauses 2 and 3 may be initiated and taken against the Main Contractor.
- 10 This MoU between Parties will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the Department (CPWD) can enforce all the Terms and Conditions of the Contract for execution of the above work.
- 11 This MOU shall be valid till the duration of completion of above work and shall be extended if so required by the CPWD.

Date

Place:

Signature of Main Contractor

Signature of Associate Geotechnical Contractor

1. Witness with address

2. Witness with address

(From Main Contractor side)

(From Associate E&M Contractor side)

ASSOCIATE SPECIALISED AGENCIES FOR E&M WORKS

1.0 CONDITIONS FOR ASSOCIATE AGENCY FOR E&M WORKS:

- 1.1 Specialized items of E&M work shall be got executed only through eligible associated specialized agencies **currently actively engaged** in execution of the said specialized items and fulfil eligibility criteria prescribed in the agreement.
- 1.2 Also, unless the main contractor himself meets the eligibility conditions for execution of E&M works (Normal items), he will have to associate with agencies, fulfilling the eligibility requirements prescribed in the tender document.
- 1.3 In the event of the associated E&M agency not performing satisfactorily or failure of associate agency to complete the E&M work, the main contractor on written directions of the department, shall remove the Associate agency deployed on the work and shall submit proposal for approval of new associate agency without any loss of time or variation in cost to the department. Such new associate agency shall also give an undertaking along with the main tenderer that both of them shall guarantee for the equipment already supplied for which payment has been released by the department in part. If any equipment supplied for the work, during the currency of the earlier associate agency and paid partly by the department, becomes redundant /not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E&M work, the main contractor shall be liable for replacement of the equipment(s) at no cost to the department. No change of associate agency will be allowed without prior approval of the Engineer-in-charge of the work.
- 1.4 The main contractor shall be responsible and liable for proper and complete execution of the E&M works despite having engaged associated agencies and ensure coordination and completion of all E&M works.
- 1.5 The Composite Contractor and the associated specialized agencies shall give required affidavit to confirm their association.
- 1.6 The associate contractor shall attend the inspection of the work by the Engineer-in-charge of E&M works as and when required.

2.0 ELIGIBILITY CRITERIA FOR ASSOCIATED AGENCY FOR E&M WORKS:

- 2.1 The tenderer(s) must associate eligible agencies to execute components of E&M Works who fulfil the prescribed eligibility criteria. However, the contractor shall also be eligible to carry out himself any or all the components of E&M Works without associating any specialized agency provided:
 - a) He fulfils the prescribed eligibility criteria respectively for these work(s).
 - or**
 - b) He directly procures the equipment of approved make from manufacturer and get it installed from authorized agency/service provider of the manufacturer or specialized agency as per the eligibility criteria mentioned below:
- 2.2 **ELIGIBILITY CRITERIA:** Eligibility criteria for various components E&M Works (Normal and Specialized) shall be as below:
 - (a) **For Normal E&M Works e.g. Internal Electrical Installations, External Lighting/Cabling/Earthing & Service Connection etc.:**

The associate agency shall be registered/enlisted in CPWD in Building & Roads category in appropriate class and should have a valid electrical license.

3.0 SUBMISSION OF PROPOSAL FOR APPROVAL OF ASSOCIATED AGENCY:

- 3.1 The Contractor(s) shall submit his proposal for the approval of the Engineer-in-Charge, the names of associate agencies of repute along with verifiable completion certificates of similar work experience, valid Electrical Contractor's license, self-attested GST registration and other documents in respect of the associated agencies, duly attested by both associated agency and the main contractor.
- 3.2 The proposal shall be submitted as early as possible but not later than one month before proposed date of start of execution of such components of E&M work as per approved work programme.
- 3.3 In case the main contractor is himself eligible (as per eligibility criteria) for executing all or some components of E&M work and intends doing job himself, the main contractor must submit the documents as per eligibility criteria mentioned for associated agency of individual E&M component(s) for approval of Engineer-in-charge.
- 3.4 Proposal for associating agency for components of E&M work shall be submitted, as per proforma given in this tender document, from each of proposed associate independently for all E&M component in prescribed Proforma given herein.

MEMORANDUM OF UNDERSTANDING (MOU)

Between

M/s having his registered office at
..... [Henceforth called the **Main Contractor**] which expression shall unless repugnant to the subject or context include its administrators, successors and assigns.

And

M/s having his registered office at
..... [Henceforth called **Associate E&M Contractor**] which expression shall unless repugnant to the subject or context include its administrators, successors and assigns.

Whereas, the Central Public Work Department (CPWD), have awarded EPC Contract to the Main Contractor for the work of:” as per Schedule of Quantities, Specifications, Terms and Conditions contained in the Agreement.

Whereas, This Memorandum of Understanding has been entered into for assigning responsibility of execution of (mention category) **component of E&M Work** forming part of the above work to the Associate E&M Contractor by the Main Contractor.

Now therefore, it is agreed between the Parties here to as follows:

1. Both the parties have gone through and understood the various Terms & Conditions and Clauses of the Contract for the work awarded to the Main Contractor and willingly agree to abide by them.
2. The 'Associate E&M Contractor' will execute (mention category) Component of E&M Work in the wholesome manner as per Terms & Conditions of the Contract. However, both Parties shall be **jointly and severally responsible** for the execution of said Component of work as per the Contract.
3. It is understood that payment for (mention category) component of E&M Work even though executed by the Associate E&M Contractor shall be done by the Department (CPWD) to the Main Contractor as per Terms & Condition of the Contract. The Parties have entered into separate agreement on Terms & Conditions for payment to be made by the Main contractor to the Associate E&M Contractor for the work done by them. The main Contractor shall promptly make payment to the Associate E&M Contractor as per agreed Terms & Condition between them. In the event of failure to make due payments to the Associate E&M Contractor by Main Contractor, the Department (CPWD) may make such payments directly to the Associated E&M Contractor after deducting the same from Bills payable to the Main Contractor.
4. In case of any dispute between Parties, either of them may go for mediation by the Engineer-in-charge. In the event of disagreement with decision of Engineer-in-Charge, either of the Parties may appeal against the mediation to the SE/SE-cum-PD/CE/CE-cum-ED in whose jurisdiction the work falls. His decision shall be final and binding on both Parties.
5. The 'Associate E&M Contractor' shall be liable for disciplinary and penal action(s) as per Contract if he fails to discharge his contractual commitments related to said component of E&M works
6. All the machinery and equipment, tools and tackles required for execution of (mention category) component of E&M Work, as per the Contract, shall be the responsibility of the 'Associate E&M Contractor'.

7. The Technical and other site staff required for the said (mention category) component of E&M Work shall be arranged by the 'Associate Data Centre Contractor' as per terms and conditions of the Contract.
8. Site Order Book & other Registers maintained for the said work shall be signed by the Representatives of Main Contractor as well as 'Associate E&M Centre Contractor' or themselves.
9. All the correspondence regarding execution of the (mention category) component of E&M Work shall be done by the department with the Associate E&M Contractor with a copy to the Main contractor. In case of non-compliance of the provisions of the Contract, the Main Contractor, as well as the Associated E&M Contractor shall be responsible and action under Clauses 2 and 3 may be initiated and taken against the Main Contractor.
10. This MoU between Parties will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the Department (CPWD) can enforce all the Terms and Conditions of the Contract for execution of the above work.
11. This MOU shall be valid till the duration of completion of above work and shall be extended if so required by the CPWD.

Date:

Place:

Signature of Main Contractor

Signature of Associate E&M Contractor

1. Witness with address

2. Witness with address

(From Main Contractor side)

(From Associate E&M Contractor side)

PROPOSAL FOR ASSOCIATING AGENCY FOR E&M WORKS

I/we hereby propose the following agency for execution of E&M work component mentioned herein.
Consent Letter from the proposed associated agency is enclosed.

- (i) Name of work :
- (ii) Component of E&M Work :
- (iii) Name of Associated Agency :
- (iv) Details of Enlistment :
- (v) Category and Class of Enlistment :
- (vi) Monetary limit of work in Enlistment :
- (vii) Validity of Enlistment :
- (viii) Copy of Enlistment Order attached : (Yes /No)
- (ix) Copy of electrical contractor license attached : (Yes /No)
- (x) Copy GST Registration attached : (Yes/No)
- (xi) Copy PAN Card Attached : (Yes/No)
- (xii) Consent Letter of agency attached : (Yes/No)
- (xiii) Copy of completion certificates of similar work experience attached: (Yes /No)

Encls: Self Attested photocopies of as stated above

Seal & Signature of the Main Contractor

CONSENT LETTER FROM ASSOCIATE AGENCY FOR E&M WORKS

Name of Work:

I / We hereby give my consent to associate with M/s, for executing the (mention category) component of E&M work of the above-mentioned work.

I / We will execute the work as per specifications and conditions of the agreement for the work and as per directions of the Engineer-in-Charge for the said component of E&M work till the completion of the work.

I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.

I / We will employ full time technically qualified Engineer / supervisor for the said component of E&M work as required for the work.

I / We will attend inspection of work by officers of the department as and when required.

Dated:

Seal & Signature of Associate E&M Contractor

SECTION - C

ADDITIONAL CONDITIONS & SPECIFICATIONS FOR CIVIL WORKS (MAJOR COMPONENT)

C1. ADDITIONAL CONDITIONS FOR CIVIL WORKS

1. Except for the items, for which Specifications are given herein or where it is specifically mentioned otherwise in this bid document, the work shall generally be carried out in accordance with the **“CPWD Specifications - 2019 (Vol. I & II)”** for Civil works or their latest version with up to date correction slips and CPWD Specification for Horticulture works with up to date correction slips (hereinafter to be collectively referred to as ‘CPWD Specifications’. Wherever CPWD Specifications are silent, the latest BIS Codes/Specifications, National Building Code-2016, MoRTH Specification, Manufacturers Specifications, Sound Engineering practices or well-established local construction practices as decided by the Engineer-in-charge shall be followed.
2. The order of preference in case of any discrepancy as indicated in condition no. 8.1 under “Conditions of Contract” given in the Standard CPWD Contract form may be read as the following:
 - a) Description of Schedule of Quantities.
 - b) Additional & Special Conditions for Civil Works
 - c) Contract Clauses of Standard CPWD contract form.
 - d) Drawings
 - e) CPWD Specifications as applicable.
 - f) Indian standard specifications of BIS
 - g) Manufacture’s specifications
 - h) Sound Engineering Practice as per direction of Engineer-in-charge.
3. The proposed work is a prestigious project and quality of work is of paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work. Many items & specialized works will require engagement of specialised agencies & skilled workers having experience in execution of such items.
4. The tenderer shall acquaint himself with the proposed site of work, its approach roads, working space available etc. before quoting his rates and no claim on this account shall be entertained by the department.
5. The contractor shall make his own arrangements for obtaining water & electricity connections for self-use and make necessary payments directly to the department concerned.

The contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.
6. The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account.
7. The work shall be carried out in the manner complying in all respects with the requirements of the relevant bye laws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.
8. The contractor(s) shall inform/issue notices to the Municipality, police and other authorities that may be required as per law and obtain all requisite permission/ licenses for temporary

obstructions, enclosures etc. Contractor(s) shall pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night.

9. For construction works which are likely to generate malba / rubbish, the contractor shall reuse it at site as directed by the Engineer-in-charge or hand over to recycling agents or dispose of at his own cost to the notified/specified Municipal dumping ground. No deduction on this account shall be made from the agency as well as no extra payment will be made to agency for the same.
10. The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and water-ways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage work or public or private property whatsoever caused thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor without any reservation entirely to the satisfaction of the Engineer-in-Charge.
11. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of building/adjacent properties.
12. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings of the work and satisfy himself that the information available thereof is complete and unambiguous. The discrepancy, if any shall be brought to the notice of the Engineer-in-Charge before execution of the work. The contractor alone shall be responsible for any loss or damage executing by the commencement of work on account of any discrepancy and/or incomplete information
13. Other agencies may also be simultaneously executing works assigned to them for this Project and the contractor shall coordinate and facilitate for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
14. The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.
15. Some restrictions may be imposed by the security agencies/client on the working hours and on movement of labour, materials etc in the campus/site and may require issuing identity cards to all persons authorized by contractor to do work / visit the work site. The contractor shall be bound to follow all such restrictions / instructions and no claim whatsoever shall on this account will be entertained. The loss of time on this account, if any, shall have to be made up by generating additional resources etc.
16. The 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 measure, earth embankments, preparatory works, all testing of materials, working during monsoon, working at all depths, height and locations etc. unless specified in the schedule

AE (E)	EE&SM(E)	AE(C)	EE&SM(C)
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of quantities.

17. 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.
18. 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 until handing over to the client. The contractor shall be fully responsible for any damage to the govt. property and work for which the payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P, Machinery brought to the site by him.
19. The contractor shall deploy resources e.g. manpower, labour, T&P, Plant & Equipment etc. as per actual requirement of work as per work program within stipulated time and contractor himself shall be responsible for their efficient use avoiding any idling. No damages/compensation shall be payable on account of idle manpower, labour, T&P, Plant and Equipment and loss of profit etc. for whatsoever reason, not even for delay in work due to justified hinderances.
20. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, material, tools and plants and other inputs involved in the execution of the item.
21. The contractor (s) shall quote all-inclusive rates against the items in the schedule of quantities and nothing extra shall be payable for any of the conditions and specifications mentioned. In the tender documents unless specifically specified otherwise.
22. Unless otherwise specified in the schedule of quantities the rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. Those conditions shall be considered to include water from any source such as inflow of flood, surface and sub-soil water etc. and shall apply to the execution in any season.
23. The work shall be executed and measured as per metric dimensions given in the Schedule of quantities, drawings etc. (FPS units wherever indicated are for guidance only).
24. Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be inclusive of all costs & taxes/levies/royalties etc. and shall apply to **all leads and lifts and nothing extra shall be payable** on this account.
25. The foundation trenches shall be kept free from water while works below ground level are in progress.
26. No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.
27. All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, temporary barricading or fencing around the working sites, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, protection works, facilities for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor. Nothing extra shall be payable on these accounts.
28. For completing the work in time, the Contractor might be required to work in two or more shifts

(including night shifts). Normally contractors shall not be allowed to execute the RCC, electrical and finishing work at night. Work at night shall, however, be allowed if the site conditions/circumstances so demand. No claim whatsoever shall be entertained on this account, not with-standing the fact that the contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the contractor with them.

29. The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.
30. All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
31. The contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan however, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
32. The Contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department/arranged by the contractor.
33. ***All mass Reinforced Cement Concrete work/RCC in Structural Members shall be design mix concrete of specified grade. The contractor shall procure RMC from automatic batching plant (RMC plant) located near the project site to be approved by Engineer-in-charge for production of design mix concrete.***
34. 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.
35. Any legal or financial implications resulting out of carriage of earth from outside or disposal of earth shall be sole responsibility of the contractor. Nothing extra shall be paid on this account.
36. The work of water supply, internal sanitary installations and drainage etc. shall be carried out as per CPWD Specifications, NBC-2016 and bye laws of the Municipal Corporation or any other local body and the contractor shall produce necessary completion certificates from such authority after completion of work wherever applicable.
37. In case of local Municipal regulations / restrictions by client /non-availability space at site if huts for labour are not allowed to be erected at the site of work, the contractor shall be required to provide such accommodation at suitable place at his own cost and nothing extra shall be paid on this account.
38. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar service encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall identify all underground / overhead services and take necessary measures to protect the services before starting any excavation / activity. All temporary supports and other measures required to protect and maintain the services during construction period as per direction of Engineer-in-charge, shall be deemed to be included in the

quoted rate / amount of the contractor and nothing extra shall be paid on this account. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. For any permanent shifting contractor shall arrange to shift the services as and when required. For the same contractor shall be paid separately at the rates as decided by the Engineer-in-charge based on the actual quantum of the work involved in shifting such utilities/services. The decision of the Engineer-in-Charge in this regard shall be final and binding.

39. The contractor shall be responsible for the watch and ward of the building complex and to safeguard materials, equipment, fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

40. **SETTING OUT**

- 40.1. Contractor shall provide permanent bench marks and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.
- 40.2. The contractor shall establish, maintain and assume responsibility for grades, lines, levels and bench marks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions to the Engineer-in-Charge before commencing work. Commencement of work shall be regarded as the contractor's acceptance of such grades, lines, levels and dimensions and no claim shall be entertained at a later date for any errors found.
- 40.3. If at any time, any error in this respect shall appear during the progress of the work, the contractor shall, at his own expense rectify such error if so required to the satisfaction of the Engineer-in-Charge.
- 40.4. Though the site levels may be indicated in the drawings the contractor shall ascertain himself and confirm the site levels with respect to GTS bench mark from the concerned authorities.
- 40.5. The approval by the Engineer-in-Charge of the setting out by the contractor shall not relieve the contractor of any of his responsibilities.
- 40.6. 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.

41. **DE-WATERING**

- 41.1. De-watering required, if any, shall be done conforming to BIS Code IS: 9759 (guide lines for de-watering during construction) and / or as per the specifications approved by the Engineer-in-charge. Design of an appropriate and suitable dewatering system shall be the Contractor's responsibility.
- 41.2. In trenches where surface water is likely to get into cut / trench during monsoons, a ring bund of puddle clay or by any other means shall be formed outside, to the required height, and maintained by the Contractor. Also, suitable steps shall be taken by the Contractor to prevent back flow of pumped water into the trench. Nothing extra shall be payable on this account.
- 41.3. For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of the water is required, the contractor shall do the same at his own cost and nothing extra shall be paid. Nothing extra shall be paid for execution of work in or under water and / or liquid mud including pumping out of water as required.

42. **PROGRAMME CHART**

- 42.1. The Contractor shall prepare an integrated programme chart in MS Project, Primavera software for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfilment of the programme within the stipulated period or earlier and submit the same for approval to the Engineer-in-Charge within ten days of award of the contract. Non-submission of such programme shall attract the recoveries as mentioned in the Schedule-F of the tender document.
- 42.2. The programme chart should include the following:
- (a) Descriptive note explaining sequence of the various activities.
 - (b) Network (PERT/CPM/BAR CHART) in MS Project/Primavera Software (For small works, Bar-Chart in Excel sheet may be accepted as approved by Engineer-in-charge)
 - (c) Programme for procurement of materials by the contractor.
 - (d) Programme of procurement of machinery / equipment having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor.
- 42.3. If at any time, it appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved programme referred above, the contractor shall produce a revised programme showing the modifications to the approved programme to ensure completion of the work. The modified schedule of programme shall be approved by the Engineer-in-Charge. Non-submission of such revised programme shall attract the recoveries as mentioned in the Schedule-F of the tender document.
- 42.4. The submission for approval by the Engineer-in-Charge of such programme or the furnishing of such particulars shall not relieve the contractor of any of the duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.

43. **PROGRESS REPORT**

The contractor shall submit to the Engineer-in-charge on the 5th day of each month, hard copy of monthly progress report of the work. Such progress report will include the project progress, work progress (planned vs actual), CPM chart, status of financial progress and achievement of milestone, manpower deployment status, inventory of materials and photographs of important activities. For delay in submission of the report, compensation @ Rs. 5000/- (Rupees Five Thousand only) per day of delay subject to maximum of Rs.50,000/- for each report will be recovered from the amount payable to the contractor.

44. **SAFETY PRECAUTIONS**

- 44.1. The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards, day and night speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused to existing/new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.
- 44.2. In case of any accident of labours / contractual staff's the entire responsibility will rest on the part of the contractor and any compensation under such circumstances if becomes payable the same shall be entirely borne by the contractor and department shall have no role on this account.
- 44.3. It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.

- 44.4. Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.
- 44.5. In the event of the contractor(s) committing a default or breach of any of the provisions of the Central Public Works Department, 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 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 of Rs.5,000/- per day for each day of default subjected to a maximum of 5 percent 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.
- 44.6. The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc. under various labour laws and other regulations applicable to the works, at his site office.

45. SECURITY MEASURES

- 45.1. Contractor has to follow the security requirement of the campus and obtain necessary entry passes for the labour and vehicles and follow security checks at entry / exit gates, restriction on movement of vehicle, restricted timings of working etc. The Department however shall assist the contractor in obtaining such passes for movement of vehicles and labour. No claim whatsoever shall be entertained on account of delay in entry of vehicles and labour including restrictions in working hours, if there is any.
- 45.2. The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. The contractor shall, on demand submit list of his agents, employees and work people concerned & shall satisfy antecedents of such people.
- 45.3. The contractor & his work people shall observe all relevant rules regarding security promulgated in which work is to be carried out by the Controlling Administrative Authority of the campus/area (hereinafter referred to as "Administrator").
- 45.4. The contractor, his representative, workman shall be allowed to enter through specified gates & timing as laid down by the controlling authority. They shall be issued an identity card or an individual pass in accordance with the standing rules & regulations & they should possess the same while working. The contractor shall be responsible for the conduct & actions of his workmen, agents/ representatives.
- 45.5. Normally contractor shall be allowed to carry out work between 7 AM to 6 PM. However, he may also be allowed to carry out the work beyond 6 PM & up to 7 AM if the site conditions/circumstances so demand with prior written permission from the "Administrator". However, if the work is carried out in more than one shift or at night, no claim on this account shall be entertained.
- 45.6. Normally contractor's material / vehicles etc shall be allowed to move in / go-out between 7 AM to 7 PM only & no movement of material / vehicles out of work site shall be allowed during night hours unless specific permission is obtained from the "Administrator".
- 45.7. In case if a separate entry has been allowed, the contractor has to make all arrangement for making a separate entry gate and barricading of the working area to segregate/separate the same from other areas. All these have to be done by the contractor at his own cost including safeguarding any untoward incident in the restricted area due to separate entry gate and barricading arranged by the contractor. No extra amount on this account shall be payable by the

department.

- 45.8. In the event of any restrictions being imposed by the Security agency, CPWD, Traffic or any other authority having jurisdiction in the area on the working or movement of labour /material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required. Nothing extra shall be payable on this account.

46. **QUALITY ASSURANCE**

- 46.1. **It shall be mandatory for the contractor to provide the self-attested (by agencies/ contractors) copies of Tax paid bills of the materials entered in the MAS Register viz., Steel, Cement, Bitumen, Paint, Primer, Distemper, varnishes, Tile Adhesive, Admixture, Anti termite chemical, Water proofing compound material and any other item as decided by Engineer in charge.**
- 46.2. Self-attested copies of Tax paid bills of materials taken in MAS Register shall be provided by the agencies/ contractors before settling the payments. In case of any doubt the same can be verified by the CPWD. However, onus of genuineness of Tax paid bills rests with the agencies/ contractors.
- 46.3. The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-Charge.
- 46.4. The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted.
- 46.5. ***Wherever work is specified to be done 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.***
- 46.6. All materials obtained from Govt. Stores or otherwise shall be got checked by the Engineer-in-Charge or his any authorized supervisory staff on receipt of the same at site before use.
- 46.7. The contractor shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimensions as may be necessary for execution of work. The sealed samples are to be handed over to the testing lab by contractor in the presence of Junior Engineer/Assistant Engineer-in-Charge of work.
- 46.8. ***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 e.g. packaging, sealing, transportation, loading, unloading etc. shall also be borne by the contractor.***
- 46.9. The contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case, he or his authorized representative is not present or does not associate him, the results or such tests and consequences thereon shall be binding on the contractor.
- 46.10. For certain items, if frequency of tests not mentioned in the CPWD Specifications and then relevant IS code shall be followed and tests shall be carried out as per the frequency specified therein.

- 46.11. If any load testing or special testing is to be done for any sample whose strength is doubtful, the cost of the same shall also be borne by the contractor.
- 46.12. Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-in-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per approved list of brand names given in the tender document / additional specifications for approval of Engineer-in-charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-in-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval.
- 46.13. 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 the Engineer-in-charge giving details to indicate the brand proposed to be used is equivalent to the brands mentioned in the agreement. Decision of the Engineer-in-charge shall be final and binding in this respect.
- 46.14. To avoid delay, contractor should submit samples as stated above well in advance so as to give timely orders for procurement. If any material, even though approved by Engineer-in-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.
- 46.15. The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement, to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.
- 46.16. The contractor shall get the water tested with regard to its suitability and conforming to the relevant IS Code. The contractor shall obtain written approval from the Engineer-in-Charge before he proceeds by using the same for execution of work. The water testing charges shall be borne by the contractor. If tube well water is not suitable, the contractor shall arrange Municipal water or from any other source at his own cost and nothing extra shall be paid on this account. The water shall be got tested at frequency specified in latest CPWD Specifications / BIS Code.
- 46.17. The Stone aggregate/stone, sand shall be brought from any quarries subjected to the said materials conform CPWD specifications.
- 46.18. The gradation of well graded coarse sand to be used in cement plaster work shall be strictly as per CPWD Specifications 2019, conforming to IS:1542-1977 and as per manufactures specifications/relevant IS codes for polymer added Ready mix plaster of approved makes. The plastered surface shall be fairly smooth without any undulation of any kind for applying paint/white wash.
- 46.19. **The contractor shall invariably prepare the samples of finishing items** i.e. flooring of different types, external & internal finishing i/c colour scheme of paint, tiles in dado, flooring in platforms & staircase, water supply & sanitary fittings and any other item as per direction of Engineer-in-charge. The contractor shall proceed with further finishing items only after getting the samples of these items approved in writing from Engineer-in-charge.

- 46.20. The construction joints shall be provided in predetermined locations only as decided by Engineer in charge. The cost of shuttering for these construction joints shall be included in item of Concrete work / RCC work and nothing extra shall be payable on this account to the contractor.
- 46.21. Water tanks, taps, sanitary, water supply and drainages pipes, fittings and accessories should conform to the specifications provided in bidding documents. The contractor(s) should engage approved, licensed plumbers for the work and get the materials (fixtures/fittings) tested, by the municipal Body/Corporation authorities, wherever required, at his own cost. The Contractor(s) shall submit for the approval to the Engineer-in-Charge the name of the plumbing agency proposed to be engaged by him.
- 46.22. All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested in presence of Engineer in charge as per the design conditions submitted before covering.
- 46.23. The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted by making his own arrangements for water supply, electricity etc. and nothing extra whatsoever shall be payable for the same.
- 46.24. Door/window frames/shutters and other factory-made materials shall be procured from reputed and approved manufacturers or their authorized dealers. Decision of Engineer-in-charge in this regard shall be final and binding.
- 46.25. The work shall be carried out in accordance with the drawings to be issued/Approved/NOC given from time to time by the Engineer-in-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant drawings, nomenclature of item and specification etc. issued for the work and satisfied himself for the information available there from is complete and unambiguous. The figure and written dimension of drawing shall be superseding the measurement by scale. The discrepancy if any, shall be brought to the notice of the engineer-in-charge before execution of the work. The contractor along shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and/or incomplete information and no claim whatsoever shall be entertained on this account.
- 46.26. **Testing of Materials:**
- (i) **Other Laboratories:** The contractor shall arrange carrying out all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and ***shall bear all charges in connection therewith including charges for testing for all materials including cement*** for which separate condition is provided in the tender document.
- While sending samples of the material for testing in the external laboratories the following should be ensured:
- Letter for sending sample for testing of material shall be sent through e-mail to the Lab along with name (s) of test (s) to be done on the material by AE/EE concerned with the work. The Lab shall preferably generate QR/ Bar Code for each test of the work, and it will be pasted on the box at the time of receipt of sample mentioning the number and type of material, lab tests required etc. The labs shall invariably acknowledge receipt of sample and intimate through e-mail to AE, EE, SE/CE and contractor. The test reports shall be emailed by the lab to the AE, EE, SE/CE and contractor. The bill of the testing shall be sent to the contractor for payment with a copy to the AE/EE for information.
 - The agency shall collect the sample & send it to the lab, make the necessary payment for the testing at the time of submitting the samples of material to the testing lab. If he

fails either to collect the samples or to submit to the lab, within the time mentioned in the specifications or within three working days, whichever is earlier, the department will make arrangement to collect and submit sample(s) and make the necessary payment to lab, the recovery on account of collection, submission and testing charges of samples shall be done from next R/A bill/ final bill of the agency.

- c. If the agency fails three times in collection and submission of samples for materials or fails to make payments of testing to the testing labs at each occasion within seven days of receipt of bill from the concerned lab, the Engineer-in-Charge will send the case along with all documents and his recommendations to the CE/SE (as the case may be) for initiating disciplinary action against the agency. CE/SE will take action in the matter as under:
 - (i) In case of non-enlisted contractors, CE/SE will give an opportunity to the agency to submit his version within 15 days. After considering the reply of the agency, CE/SE will take decision on debarment of the agency from participation in tendering in CPWD for a period of two years. However, running contracts shall remain unaffected by the debarment order.
 - (ii) In case of CPWD enlisted contractors, CE/SE will send the case to the Enlisting Authority along with his recommendations. As per directions of the Enlisting Authority, disciplinary action shall be initiated by the Empowered Committee as per extant enlistment rules. After considering the recommendation of the Empowered Committee, Enlisting Authority will take decision on debarment of the agency for a period of two years. However, running contracts shall remain unaffected by the debarment order

46.27. Maintenance of Site Registers:

- (i) All the Site Registers including Tests registers for tests to be carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to CPWD field staff.
- (ii) The various registers (whichever required) to be issued to the contractor are:
 - a) Materials at site account register.
 - b) Cement register.
 - c) Master test registers.
 - d) Cube test register.
 - e) Inspection register.
 - f) Drawing register.
- (iii) All the entries in the registers will be made by the designated engineering staff of the contractor and same should be regularly reviewed by JE/AE/EE.
- (iv) All the registers of tests carried out at in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to CPWD field staff.
- (v) All samples of materials including cement concrete cubes shall be taken jointly with contractor by JE and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all samples of materials including cement concrete cubes shall

be taken by AE jointly with contractor. All the necessary assistance shall be provided by the contractor. Cost of sampling & testing are to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site/ outside laboratory.

- (vi) All the tests in field lab at construction site shall be carried out by the Engineering staff deployed by the contractor and shall be 100% witnessed by AE-in-Charge. At least 10% of the tests are to be witnessed by the Executive Engineer.
- (vii) Submission of copy of all test registers, material at site register along with each alternate running account bill and final bill shall be mandatory. These registers should be duly checked by AE(P) in division office.

46.28. Removal of Rejected / Sub-standard Materials:

The following procedure should be followed in case of removal of rejected/sub-standard materials from the site of work.

- (i) Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the site order book under the signature of the AE/AEE giving approximate quantity of such materials.
- (ii) As soon as the material is removed, a certificate to that effect may be recorded by the AE/AEE against the original entry, giving the date of removal a mode of removal i.e. whether by truck, carts or by manual labour. If removal is by truck, the registration number of the truck should be recorded.
- (iii) When it is not possible for the AE/AEE 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 Junior Engineer and the AE/AEE should countersign the certificate recorded by the Junior Engineer.

46.29. Inspection of Work

In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by the senior officers of CPWD in addition of the Engineer-in-Charge and his authorized representative. The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-Charge or other officers as stated above to visit the works shall have been given to the Contractor, either himself be present to receive the orders and instructions or have a responsible Site Engineer duly accredited in writing, to be present for that purpose Senior Officers of CPWD Authorities shall be inspecting the on-going work at site at any time with or without prior intimation.

46.30. AS BUILT DRAWINGS:

46.31. On completion of work, the Contractor(s) shall submit four (04) sets of "As Built Drawings" which shall include Building Drawings (Architectural & structural drawings) and services drawings like drainage, sewerage, water supply and electrical installations of the completed buildings/services. These drawings shall have details of layout with diameter of soil waste pipe and vertical stacks, ground and invert levels of all drainage pipes together with locations of all manholes and connections, layout of all water supply lines with diameters, locations of control valves, access panels etc. The agency shall also submit at least 2 sets of above drawings in soft copy (Both PDF & AutoCAD format) in Pen Drives.

46.32. Contractor shall submit literatures, manuals, warranty certificates etc. of various fittings, fixtures and equipment and specialized items installed in the completed building/services.

46.33. Final bill will not be paid, and Security Deposit shall not be released until submission of as

AE (E)	EE&SM(E)	AE(C)	EE&SM(C)
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drawings as above or as per direction of Engineer-in-Charge.

47. ADVANCE PAYMENTS:

Contractor shall not divert any advance payments or part thereof for any work other than that needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e. mobilization advance, secured advance against materials brought at site, secured advance against plant & machinery and/or for work done during interim stages, etc.) are required to be re-invested in the contracted work to ensure advance availability of resources in terms of materials, labour, plant & machinery needed for required pace of progress for timely completion of work.

48. PANDEMIC & GRAP RESTRICTIONS:

- 48.1. *Contractor shall comply all the Conditions, Procedures, Guidelines issued time to time by authority of Central/State Govt. in case of pandemic situations (e.g. COVID) and emergency measures imposed under Graded Response Action Plan (GRAP) to prevent deterioration of air quality. The Contractor shall quote the rates considering all these factors and nothing extra shall be paid on this account.***

C2. SPECIAL CONDITIONS

1. SPECIAL CONDITIONS FOR CEMENT:

- 1.1. The contractor shall procure 43/53 grade Ordinary Portland Cement (OPC) conforming to IS:8112 / Portland Pozzolana Cement (PPC) conforming to IS: 1489 (Part-I) as required in the work, from reputed manufacturers of cement, such as ACC, Ultratech, Ambuja, Birla, J.K. Cement **or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by ADG/SDG for the Sub-Region/Region or as per list of preferred makes.**

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 manufacturer(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 manufacturers, given by the tenderer, fully or partially.

Supply of cement shall be made in 50 kg. bags bearing manufacturer's name and ISI marking **or through cement bulker**. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not confirm to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.

- 1.2. The cement shall be brought at site in bulk supply of approximately 10 tonnes or as decided by the Engineer-in-Charge.
- 1.3. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.
- 1.4. The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to test laboratories. **The cost of tests shall be borne by the contractor**
- 1.5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. Less than theoretical consumption of cement shall not be allowed and in case of excess consumption, no cost adjustment shall be paid.
- 1.6. The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-Charge.
- 1.7. The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do so within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor
- 1.8. Cement bags shall be stored in separate godowns to be constructed by the contractor at his own cost as per sketch (which is only indicative and actual size will depend on the site requirements) given in CPWD specifications with weather proof roofs and walls. Each godown shall be provided

with a single shutter door with two locks. The key of one lock shall remain with Engineer-in-charge or his authorized representative and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is issued from the godown according to the daily requirements with the knowledge of both parties and proper account for the same is maintained in the standard proforma.

- 1.9. Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site. The contractor shall construct separate godowns for storage of OPC & PPC at site and nothing extra on this account shall be payable.
- 1.10. In order to have an effective control over the issue of cement, the following drill should be observed:
 - (i) The cement godown(s) should be properly and effectively double locked, keys of one of the locks remaining with the department and that of the other with the contractor.
 - (ii) The pages of the Cement Register should be as per Annexure-30 of CPWD Works Manual, machine numbered and each page initiated by the Executive Engineer.
 - (iii) Periodical checking of cement godown.: The cement godown and the Cement Register should be checked by the Assistant Engineer/Executive Engineer in-charge of the work as per following schedule:
 - a) At least weekly or fortnightly, respectively, in case of works at the headquarters of the Assistant Engineer/Executive Engineer.
 - b) Whenever they visit the site of work in case of works that are located outside the Sub-Divisional/Divisional headquarters.

2. SPECIAL CONDITIONS FOR STEEL REINFORCEMENT BARS:

- 2.1. The Contractor shall procure Bar Set I type reinforcement conforming CPWD OM No. CSQ/SE(TAS)/Steet/2024/262-H Dated: 14.08.2024 (attached in this tender documents below) and confirming with other relevant IS Codes Provision and standard sound Engineering practices. TMT steel /Low Alloy Steel reinforcement Bars of various grades only from Reputed Steel manufacturers such as SAIL, RINL, TATA, JSW & JSPL.
- 2.2. The contractor shall obtain manufacturer's certificate stating the process of manufacture, chemical composition, and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-charge. Each test certificate shall indicate the number of the cast to which it applies corresponding to the number or identification mark to be found on the material.
- 2.3. The Engineer-in-charge shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in CPWD OM No. CSQ/SE(TAS)/Steet/2024/262-H Dated: 14.08.2024 and IS:1786 from labs as approved by the Engineer-in-charge.
- 2.4. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in-Charge to do so.
- 2.5. The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more as decided by the Engineer-in-charge.
- 2.6. The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different

sizes and lengths shall be stored separately to facilitate easy counting and checking.

- 2.7. For checking nominal mass, tensile strength, bend test, re-bend test etc. specimen of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below:

Size of bar	For consignment below 100 tonnes	For consignment above 100 tonnes
Under 10mm dia. bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10mm to 16mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof
Over 16mm dia bars	One sample for each 50 tonnes or part thereof	One sample for each 75 tonnes or part thereof

- 2.8. The contractor shall supply free of charge the steel required for testing including transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 2.9. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. Less than theoretical consumption of reinforcement shall not be allowed and in case of excess consumption, no cost adjustment shall be paid.
- 2.10. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.
- 2.11. Steel bars brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.
- 2.12. In case the contractor brings surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.
- 2.13. Reinforcement including authorized spacer bars and overlaps shall be measured in length of different diameters, as actually (not more than as specified in the drawing) used in the work, nearest to a centimetre. Wastage and unauthorized overlaps shall not be measured.
- 2.14. The standard sectional weights referred to as in Table 5.4 under para 5.3.4 in CPWD Specifications for works 2019 Vol. 1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT steel /Low Alloy Steel reinforcement Bars into standard weight.
- 2.15. Records of actual sectional weight shall also be kept dia-wise & lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as derived actual weight.
- 2.16. If the derived weight as in para 2.16 above is lesser than the standard weight as in para 2.15 above, the derived actual weight shall be taken for payment. If the derived actual weight is found more than the standard weight, as worked out in para 2.15 above shall be taken for payment. In such case nothing extra shall be paid for the difference between the derived actual weight and the standard weight.

- 2.17. Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS:456.
- 2.18. Tolerances on Nominal Mass (individual sample) shall be as under:

S. No.	Nominal size mm	Tolerances on the Nominal Mass (in %age)
1	Up to and including 10 mm	-8%
2	Over 10 up to & including 16 mm	-6%
3	Over 16 mm	-4%



भारतसरकार
केंद्रीय लोकनिर्माणविभाग
तकनीकीअनुप्रयोग एवंमानक एकाई

कमरा सं० 418 ए-विंग, निर्माणभवन, नईदिल्ली।

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E-9156762

No. CSQ/SE(TAS)/Steel/2024/ 262-HD

Dated: 14/08/2024

OFFICE MEMORANDUM

Subject:- Guidelines for use of TMT steel /Low Alloy Steel reinforcement Bars in CPWD works and enlistment of the steel manufactures in respect of TMT steel /Low Alloy Steel reinforcement Bars in CPWD.

1. The Ministry of Steel, through notification dated 12.05.2016 and order dated 9.8.2016, abolished classification of steel producers as Integrated steel producers, primary steel producers, secondary steel producers, main producers, major producers or others as well as on the basis of process route of steel manufacturing in India.
2. The Ministry of Steel, vide Circular No. 4(13)/2016-SD(I) dated 14.12.2016, reiterated their Notification dated 12.05.2016. They further issued an order dated 09.08.2016, asking the users to ascertain the quality of the steel products, to be procured, as per relevant BIS standards.
3. Para 27.2 of Works Manual 2014 was modified through OM No. DG/MAN/382 dated 06.02.2019. In this OM, under the heading "Special Condition of Steel reinforcement bars", eligibility criteria and other technical parameters were set for steel manufactures. In the eligibility criteria, incorporation details of the company, various licences, certifications, in house testing facility at plant, and refining technologies used for manufacturing of steel and TMT bars (like BF-BOF route, COREX-BOF Route, DRI-EAF route) were cited. Those manufacturers, who met the aforesaid eligibility criteria, could be included in the preferred make list of Notice Inviting Tenders (NITs) of CPWD works.
4. However, CPWD Works Manual 2014 was replaced by CPWD Works Manual 2019 and came into force with effect from 07.03.2019. In CPWD Works manual 2019, para 4.10.1 deals with use of steel and cement in works and states that "Special conditions shall be incorporated by the NIT approving authority keeping in view the guidelines issued by the Directorate from time to time in this regard which are available on CPWD website".
5. Since no Criteria /guidelines were available for approval of TMT bars manufacturer after release of the CPWD works manual 2019, an Office Memorandum No. CE(CSQ /SE(TAS) /EE(TAD) /Steel/ 2019/ 497-H dated 27.12.2019 was issued. This OM specified that (i) only ISI marked TMT bars of various grades shall be procured for use in CPWD works, (ii) SDG/ADG shall approve the steel manufacturers based on eligibility criteria and other technical parameters as per OM No. DG/MAN/382 dated 06.02.2019
6. The OM 497-H dated 27.12.2019 was withdrawn and modified guidelines for use of reinforcement bars in structures was issued vide OM No. 50-H dated 17.02.2021. The use of corrosion resistant steel (CRS) reinforcement bars in structures was also mandated vide OM No. 50-H dated 17.02.2021. Further,

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clarification regarding corrosion resistant steel was issued vide OM No. 257-H dated 23.06.2022.

7. The single bench of Hon'ble High Court at Calcutta in the case of SRMB Srijan Private Limited & others V/s Union Of India & Others (W.P.A 9990 of 2020) SRMB Srijan Private Limited & others Vs. Union of India & others With (W.P.A 24267 of 2019) has quashed the modified Clause 27.2 of the CPWD Works Manual of 2014, para 4.10.1 of the CPWD Works Manual of 2019, and consequential Memorandums issued by the CPWD and directed to implement the Notification of the Ministry of Steel, Government of India dated May 12, 2016, the Order dated August 9, 2016 and the reminders of the said Ministry dated December 14, 2016 and February 7, 2017.
8. Subsequently an appeal was filed in Division Bench (DB) of Hon'ble High court at Calcutta by CPWD. In the said case, Hon'ble High court at Calcutta, passed the judgment dated 15.04.2024. The operative part of this judgement reads as *"Accordingly we find no grounds to interfere with the order passed by the Learned single bench except with regard to the direction issued in paragraph 53 of the impugned order whereby the modified clause 27.2 of the CPWD Works Manual has been quashed and instead of quashing the said modified clause 27.2 we direct the CPWD to appropriately amend their Works Manual to be in consonance with the notification issued by the Ministry of Steel, Govt. of India as done by the notifications referred to above."*
9. In compliance of the above directions of the Hon'ble High Court at Calcutta, an Expert Committee was constituted by DG CPWD vide OM No. CSQ/SE(TAS)/EE(TAD)/Steel/2024/190-H dated 10.06.2024 for deciding the criteria for the selection of steel manufacturers for CPWD works. The expert committee has conveyed their final recommendation {enclosed as annexure I(d)} vide Minutes of Meeting dated 24th July 2024 and the same has been accepted by DG, CPWD. The brief of these recommendations are as follows:

Steel Bars shall be classified as:

- a) Bar Set I, if it complies with the requirements given in the latest version of IS 1786, and additional requirement (e.g. Chemical Composition Requirement for Manganese and Copper, Tempered Martensite (TM) Ring Requirement, Marking Requirement and compliance of the provisions of ISO 9001:2015 and ISO 14001:2004) mentioned in the recommendations.

And

- (b) Bar Set II, if it complies with the requirements given in the latest version of IS 1786.

The committee has also recommended use of above mentioned Steel Bar sets considering the importance of quality in construction of public structures in different projects of CPWD, on the basis of (a) earth quake zones, (b) environment conditions (coastline and exposure condition), (c) Structure category, and (d) heights of buildings and structures.



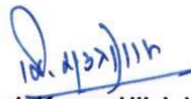
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10. Accordingly, it is decided that the reinforcement steel bars produced by plants of SAIL, RINL, TATA, JSW & JSPL which are in wider use in CPWD may be continued to be used as preferred make in the NIT in respect of Bar Set-I mentioned in para no. 9 above and Annexure-1(c). Further, it has also been decided that DG, CPWD may enlist more manufacturer plants for TMT steel/Low Alloy Steel reinforcement Bars on the basis of selection criteria recommended by the Expert Committee. These enlisted manufacturers plants for particular bar set may also be considered for stipulation as preferred make in the NIT depending upon their use.
11. The procedure for enlistment of the steel manufactures in respect of TMT steel /Low Alloy Steel reinforcement Bars in CPWD works is also enclosed herewith as Annexure-I and I (a) to I (f)

This issues with the approval of DG, CPWD.

Encl: As above


(Dinesh Kumar Ujjainia)
Superintending Engineer (TAS)


Copy to (Through CPWD Website):

The SDG (Chennai) / SDG (Chandigarh) / SDG (Kolkata) / SDG (Mumbai) for information please.



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PROCEDURE FOR ENLISTMENT OF THE STEEL MANUFACTURES IN RESPECT OF TMT STEEL / LOW ALLOY STEEL REINFORCEMENT BARS IN CPWD WORKS.

1. The following procedure shall be adopted for enlistment of the manufacturers, in respect of TMT steel / Low Alloy steel reinforcement bars of different diameter and grades for use in CPWD works.
 - i. All manufacturers having their manufacturing plants in India are eligible for enlistment in CPWD subject to the condition that they are producing steel bars of different grades conforming to the latest version of IS 1786.
 - ii. The Thermo Mechanically Treated (TMT) steel / Low Alloy steel reinforcement bars conforming to IS:1786 must be manufactured using iron ore, virgin or processed with necessary refining facilities. The rolling / processing facilities, from iron making to finished steel reinforcement bar, may be owned by the same company or its subsidiary company (ies). In this regard the necessary proof may be submitted along with application.
 - iii. The eligible manufacturer shall apply **online** to CPWD website portal to **SDG (Chennai, Chandigarh, Kolkata, & Mumbai)** on their letter head along with requisite details in prescribed application (**as per Annexure-I(a)**) along with documents (**as per Annexure-I (b)**). The manufacturer shall mention name and location of plants to be enlisted for supply of steel reinforcement bar and shall pay enlistment fee of Rs. 1,00,000.00 (Rs. One Lac Only) per plant. The manufacturer is required to pay total enlistment fees to CPWD through e-payment in **Account Number 244189- AE(Cash), CSQ, NirmanBhawan, New Delhias per Annexure-I (f)** and receipts of payment shall be enclosed with the application form.
 - iv. The enlistment fee, once paid, is non-refundable due to any reason. Therefore, manufacturers are advised to ensure that they fulfil the eligibility requirements and possess all necessary documents for enlistment before payment.
 - v. The online application submitted along with documents will be scrutinized by the **CE (Works & TLQA) O/oSDG (Chennai,**



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Chandigarh, Kolkata, & Mumbai) and shortcoming (s) or deficiency (ies) in the submitted application, if any, will be communicated to the applicants through online portal. The applicants will be allowed to submit clarifications or information online within a period of one month from the date of intimation of shortcomings.

- vi. If the manufacturer fails to submit the required clarifications or information within one month from the date of intimation of shortcomings, the application shall be summarily rejected and no further communication shall be entertained. The enlistment fees shall be forfeited.
- vii. All the relevant clarifications and/or information received within the time period shall be considered and if found in order, such manufacturer shall be informed about the dates of plant (s) visit by the team of CPWD officers consisting of **one SE, one EE and one AE (to be nominated by respective SDG)**.
- viii. On site verification of documents, submitted at the time of application, will be done by the CPWD team, during the plant(s) visit. Further, the testing of individual bars of particular grade (s), at each plant, shall be carried out in the lab available at plant in presence of CPWD team and representative of manufacturer **(as per Annexure-I(c))**. The entire testing process shall also be video recorded.
- ix. CPWD team, at each plant, shall also collect the samples (i.e. one sample consist of three bars) of each diameter of different grades and sealed in presence of manufacturer's representative. The type testing of these samples shall be done in one of the designated lab of National Test House, IITs, NITs and NCCBM in presence of CPWD representatives. The dates of testing of samples in the designated laboratory shall be decided by the manufacturer in consultation with the lab authorities and CPWD team. The entire testing process, including opening of sealed samples, shall be video recorded.
- x. After plant visit by the CPWD team, a report along with photographs / video of the plants and results of the tests conducted during visit shall be uploaded on the portal within 5 working days.
- xi. The results of the type tests, conducted in the designated lab, shall be uploaded on the portal within 5 working days of receipt of the same.

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- xii. After getting all the test reports, complete case along with documents and recommendation of respective SDG (**Chennai, Chandigarh, Kolkata, & Mumbai**) will be sent to CE, CSQ (Civil), CPWD, Nirman Bhawan, New Delhi.
2. A committee comprising of following officers will evaluate the case received from SDG (**Chennai, Chandigarh, Kolkata, & Mumbai**) for the enlistment of steel manufactures' plant for reinforcement bar of different grades on the basis of criteria given in **annexure-I(d)** in CPWD Directorate, Nirman Bhawan, New Delhi.

ADG (Tech)	-	Chairman
CE (Project)	-	Member (to be nominated by ADG (Tech))
CE, CSQ (Civil)	-	Member
SE (Design)	-	Member (to be nominated by ADG (Tech))
SE (TAS)	-	Member Secretary

The committee will recommend the steel manufacturers' plant for enlistment or otherwise to DG, CPWD for his approval.

3. The approval of the competent authority shall be intimated to the respective manufacturer in respect of a particular plant for each diameter of different grades of steel under category Bar Set I / Bar Set-II
4. If, no bar diameter of specific grade of steel of the particular plant of a manufacturer is found suitable, then he will be intimated accordingly. The manufacturer may apply afresh next time when applications are re-invited for enlistment. In case of rejection of application, the decision of the CPWD shall be final and binding on the applicants.
5. **Validity of Enlistment:** The enlistment of manufacturer's plant for particular bar diameter and grade of steel shall be valid for a period of 3 (three) years from the date of issue of enlistment order. The enlistment shall be open to review by the enlisting authority i.e. Director General, CPWD at any time. In case any adverse report is received against the manufacturer, the enlistment is liable to be suspended/cancelled/or manufacturer can be black listed for future enlistment in CPWD or any other action as deemed fit (as per **Annexure-I(e)**).



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Annexure-I(a)

Application for Enlistment OF THE STEEL MANUFACTURES IN RESPECT OF
TMT STEEL / LOW ALLOY STEEL REINFORCEMENT BARS and re-enlistment
(Supporting documents annexed with the application form should be uploaded
as per Annexure-I(b))

1. (a) Name of the applicant

(b) Status of entity (Limited Liability Partnership/Ltd. Company).....

2. Address

(a) Registered Office.....

(b) Head Office (if different from Registered office).....

3 Contact Details

(a) Name of contact person and Designation.....

(b) Telephone Number.....

(c) Mobile Number

(d) Email Id.....

(e) Website URL (If any)

4 Detail of Plant (s) for which Enlistment applied:

i. (a) Name of Plant.....

(b) Location.....

ii. (a) Name of Plant.....

(b) Location.....

5. Enlistment fee(s) detail (Fees Rs. 1,00,000.00 per Plant) :

(a) Transactions Reference Number

(b) Transaction Date.....

(c) Amount.....

6. Certificates (Strike out whichever is not applicable)

- a. I/We (including all partners) certify that I/we have read the Rules for
Enlistment of steel manufacturer in CPWD as amended upto date and shall
abide by them.



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- b. I/We certify that I/we are not enlisted and will not get myself / ourselves registered as steel manufacturer in the Department under more than one name.
- c. I/We have neither employed nor shall we employ any person within one year of his retirement from the Government except with the prior permission of the Government.
- d. I/We will not make changes in the owner ship of the company without prior intimation to department.
- e. I/We have not declared or is in the process of being declared bankrupt, insolvent, wound up, dissolved or partitioned.
- f. I/We have not been removed/suspended/blacklisted/debarred/restrained from the business by any central /state government department/PSUs.

I/We certify that the information given above is true to the best of my/our knowledge. I/We understand that if any information is found incorrect, our enlistment is liable to be cancelled and I may be blacklisted / suspended / debarred for future enlistment in CPWD.

Place :

Signature of applicant

Date:

(Authorized Signatory)



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Annexure-I (b)

A. Documents required to be submitted with application:

1. Documents regarding Ownership / Promoters of the manufacturing plant, its head office address, location and address of steel manufacturing facility.
2. If any subsidiary company(ies) exists, then documents regarding Ownership / Promoter ship of the subsidiary company, Subsidiary company's address and its relation with main company, location and address of manufacturing units of subsidiary company.
3. Copies of Certificate of Incorporation & Memorandum of Article of Association of Main Company.
4. Approval/ enlistment of manufacturer company by CPWD (in past), or any other Central/State Government departments/PSUs for use of steel reinforcement bars.
5. Document and Production process flow diagram / chart of steel making for production of TMT and Low alloy steel (Corrosion Resistant Steel) Reinforcement bars for Fe 415D, Fe 500D, and Fe 550D of bar sizes 8 mm to 45 mm dia.
6. Document related to Quality Assurance Plan adopted in manufacturing of steel and calibration record of measuring and testing equipments.
7. Authenticated copies of BIS certificate for billets (IS 2830 : 2012) & BIS certificate for TMT bars (IS 1786 :2008) (with up to date Amendment)
8. Copy of ISO-9001:2008 (Quality Management System), Quality Management System, ISO-14001:2004 (Environment Management System).
9. The CO2 emission per kg of steel production.
10. Whether manufacturer is blacklisted/suspended/debarred/restrained from business by any Central / State Government Department or PSU for poor quality of reinforcement steel bar (if any) supplied by the company.
11. Test results of bars as per Annexure-I(c).

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Annexure- I(c)

Testing requirement for individual reinforcement bar diameter of Particular Grade of steel:

Tests required for Fe 415D, Fe500D, Fe550D grade of steel and Low alloy steel reinforcement bars:

A. FOR BAR SET- I

1. Tests as per IS 1786 (latest version) and specified therein

1.1 Chemical Properties

Ladle analysis of steel for above grades for maximum percentage of constituents

- i. Carbon (C), (ii) Sulphur (S) and (iii) Phosphorous (P) and (iv) Nitrogen and Carbon Equivalent

1.2 Physical Properties

- (i) 0.2 percent proof stress / yield stress, minimum, N/mm².
- (ii) Ratio of Tensile Strength (Ts) to Actual Yield Strength (or 0.2 % of yield stress (Ys)) of the test piece N/mm².
- (iii) Elongation, percent, Minimum, on gauge length $5.65\sqrt{A}$, where A is the cross-sectional area of the test piece.
- (iv) Total elongation at maximum force, percentage, minimum on gauge length $5.65\sqrt{A}$, where A is the cross-sectional area of the test piece.
- (v) Bend test and re-bend test.
- (vi) The mean area of ribs (in mm²) per unit length (in mm) above the core of the bar, projected on a plane normal to the axis of the bar.
- (vii) Pull-out testing in accordance with IS 2770 (Part 1)

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2. Additional requirement

2.1 Permissible limit for Manganese and Copper as follows:

Constituent	Permissible Limit (% of cast metal quantity)		
	Fe 415 D	Fe 500 D	Fe 550 D
Manganese (Mn)			
Maximum	1.60	1.60	1.60
Copper (Cu)			
Maximum	0.80	0.80	0.80
Minimum	0.20	0.20	0.20
Notes: The above composition shall be obtained as per latest version of IS 228 1. Manganese using Periodate Spectrophotometric Method (Part 12), and 2. Copper using Thiosulphate Iodide Method (Part 15) or Spectrophotometric (Diethyl Dithiocarbonate) Method (Part 21)			

2.2 Tempered Martensite Ring Test as per Annexure-I (d).

2.3 The process of manufacturing steel shall comply with the provisions of ISO9001: 2015 and ISO14001: 2004.

(B)FOR BAR SET-II

1. The test requirements given in para 1.1 and 1.2 above.



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1. CRITERIA FOR CLASSIFICATION OF BARS

The steel bars manufactured in India shall be classified as specified hereunder for the purposes of their use in works of CPWD.

1.1 Process of Classification

Steel Bars shall be classified as *Bar Set I* and *Bar Set II*. The bars shall be placed under one of these categories based on *Type Test* (the test performed to select the bars) performed as specified hereunder. These tests to be performed are those specified in the latest version of **IS 1786** published by the Bureau of Indian Standards, and the additional tests mentioned in Para 2 of this document.

The *Type Test* shall be performed at any one of the National Test Houses, IITs, NITs, and NCCBM, subject to:

- (a) The test samples being collected from the manufacturing facility by the representative engineer of CPWD,
- (b) The availability of the required test facility at the said laboratory, and
- (c) The test being witnessed by representative engineer of CPWD.

1.2 Classification of Steel Bars

The bar shall be classified as:

- (1) *Bar Set I*, if it complies with the requirements given in the latest version of **IS: 1786**, and those given in Para 2 of this document, and
- (2) *Bar Set II*, if it complies with the requirements given in the latest version of **IS 1786**.

2. ADDITIONAL REQUIREMENTS

Four additional requirements as specified hereunder.

2.1 Chemical Composition Requirement

The permissible limits of additional elements shall be as per **Table 1**.

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Table 1: Permissible limits of additional elements

Constituent	Permissible Limit (% of cast metal quantity)		
	Fe 415 D	Fe 500 D	Fe 550 D
Manganese (Mn)			
Maximum	1.60	1.60	1.60
Copper (Cu)			
Maximum	0.80	0.80	0.80
Minimum	0.20	0.20	0.20
Notes: The above composition shall be obtained as per latest version of IS 228 : (1) Manganese using Periodate Spectrophotometric Method (Part 12), and (2) Copper using Thiosulphate Iodide Method (Part 15) or Spectrophotometric (Diethyl Dithiocarbonate) Method (Part 21).			

2.2 TM Ring Requirement

The following two requirements shall be met with:

- (1) Does the *Tempered Martensite(TM) Ring* satisfy the visual analysis as per **Step 1** of **Table 2**; and
- (2) The thickness of the TM Ring obtained as per **Step 2** of **Table 2** shall be between 0.07f and 0.15f, where f is the *original nominal diameter* of the bar.

(a) Test Procedure

The following is the procedure:

- (1) The test setup to capture the *Cross-Sectional Phase Distribution (CSPD)* of the TMT bars shall be as shown in **Figure 1**.
- (2) Steel bars may be cut using handsaw or an abrasive cutter with continuous supply of coolant to limit the temperature of steel, and thereby avoid any transition or changes in *Tempered Martensite(TM)* and *Ferrite-Pearlite (FP)* phases (**Figure 2**). The sharp edges of cut bars should be smoothened using

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silicon carbide abrasive sheets. A metal polishing machine can be used to achieve effective smoothening.

- (3) The smoothened steel specimen shall be moulded in cold setting epoxy with good surface finish. Setting time of epoxy is about 10-15 minutes.
- (4) The moulded specimen surface shall be course polished using abrasive sheets of 80, 150, 220, 320, and 600 grit sizes in sequence. Specimens shall be micro-etched using Nital (5% Nitric acid in alcohol) to capture the CSPD.

(b) Measurements

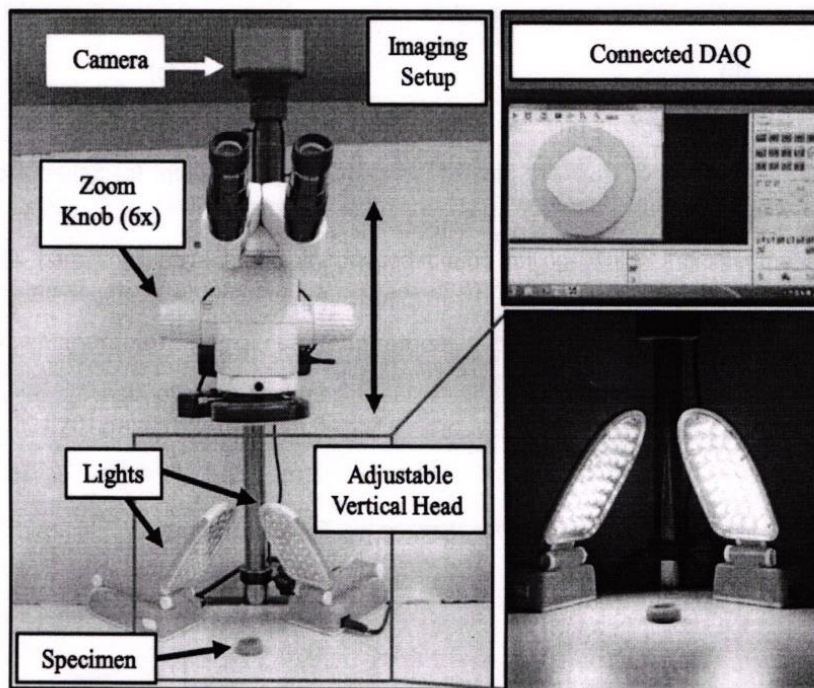
The procedure for obtaining the CSPD of the TM Ring along the perimeter shall be as per **Table 2**.

2.3 Marking Requirement

All bars shall have marks introduced during rolling, which indicate the *name of manufacturer or brand name*, and *grade of steel*.

2.4 Manufacturing Process Requirement

The process of manufacturing steel shall comply with the provisions of ISO 9001:2015 and ISO 14001:2004.



(a)

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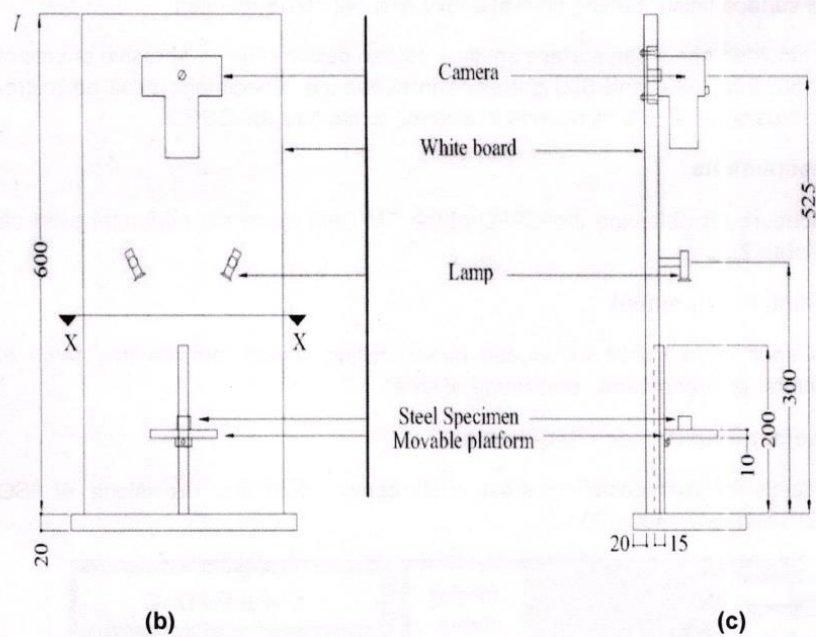


Figure 1: Test setup for CSPD of the TMT bars: (a) Imaging Setup, (b) Schematic Front View (c) Schematic Side View

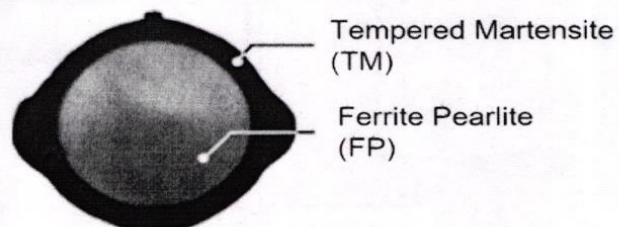


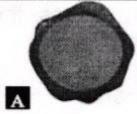
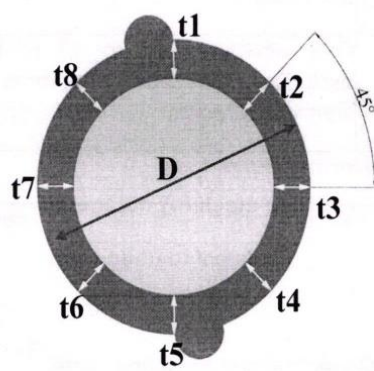
Figure 2: Cross-section of the steel bar showing the TM and FP areas

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Table 2: Method of obtaining CSPD of TM Ring

Step 1: Visual Analysis of etched Cross-Section			
			
Acceptable	Not acceptable	Not acceptable	Not acceptable
1. Is a dark grey peripheral region and light grey core seen as in Case A?			Yes/No
2. Does the dark grey peripheral region form a continuous outer ring?			Yes/No
Step 2: Dimension Analysis of TM-Ring thickness			
3. Diameter D (mm) of the steel bar			
4. Geometry		t_1	
		t_2	
		t_3	
		t_4	
		t_5	
		t_6	
		t_7	
		t_8	
		Measured t_{max} (mm)	
5. Is the measured $t_{min} \geq 0.07 f$?		Yes / No	
Is the measured $t_{max} < 0.15 f$?		Yes / No	

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3. GUIDELINES FOR USE OF STEEL BARS IN DIFFERENT PROJECTS

Considering the importance of quality in construction of public structures, the basis for use of bars in different projects of CPWD shall be as given in **Table 3**.

Table 3: Use of Bar Sets I and II in CPWD Projects

S.No.	Consideration	Bar Set I	Bar Set II
1.	Earthquake Zones	All zones	Only <i>Earthquake Zone II</i>
2.	Environment Conditions		
	(a) Coastline	All conditions	Beyond 10 km from the coastline of India
	(b) Exposure Conditions	All exposure conditions as per IS 456 (latest version)	Only <i>Mild</i> and <i>Moderate</i> Exposure Conditions as per IS 456 (latest version)
3.	Structure Category	All categories	Only <i>Normal Buildings</i> as per Table 4 and standalone <i>Normal Structures</i> as per Table 5 .
4.	Heights of Buildings and Structures	All heights	Only structures up to 12 m height excluding <i>staircase headroom</i> and <i>liftmachine rooms</i>

Table 4: List of Normal Buildings

Residential or Non-Residential Buildings with occupancy less than 100 persons, <i>excluding</i>: (1) Educational buildings, (2) Buildings of strategic importance, (3) Buildings and structures identified by Government of India and State Governments to be critical for governance or Disaster Management, (4) Hospital buildings, (5) Buildings that house the control or operations of utilities (for example, water, power, and sewage disposal), and lifeline (for example, communication and transportation facilities) structures, (6) Buildings related to defense and space applications, (7) Buildings identified by Government of India, State Governments and UT Administrations to be of <i>Special Importance</i>, and (8) Any other building identified with the approval of DG, CPWD.

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Table:5 List of Standalone Normal Structures

Water Tanks and Water Sumps up to 50,000 liters, and Pump Rooms of area less than 20 m ²
Septic Tanks, Sewage Treatment Plants, and Effluent Treatment Plants up to 10,000 liters/day
Bridges and Culverts of spans up to 6 m
Earth Retaining Structures up to 4 m
Compound Walls, Entry Gates, and Small Reception Rooms
Storm Water Drains
Cable Trenches
Parking Structures of single storey
Security Cabins and Sentry Post
Any other structure identified with the approval of Technical Sanctioning Authority of CPWD

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Annexure-I(e)

Grounds for Removal/ Suspension/ Blacklisting/ Debarring of manufacturer from CPWD

1. The manufacturer may be removed/suspended/blacklisted/debarred, if any of the following is established:
 - i. If found to have given false particulars at the time of Application; or
 - ii. Has indulged in any type of forgery or falsification of records; or
 - iii. Changes in the ownership of the company without prior intimation to department.
 - iv. Declared or is in the process of being declared bankrupt, insolvent, wound up, dissolved or partitioned or
 - v. Violates the labour rules and regulations or
 - vi. Is involved in complaints of serious nature received from any source which have been proved; or
 - vii. Ceases to fulfil eligibility criteria based on which manufacturer's name was approved; or
 - viii. Is considered as not required to be in list of CPWD enlisted manufacturer for any other reason considered fit by the enlisting authority; or
 - ix. Received reports from field units of CPWD for supply of sub-standard quality of steel in more than one occasion; or
 - x. Has been removed/suspended/blacklisted/debarred/restrained from the business by any central /state government department/PSUs.
2. Whenever, any type of complaint mentioned above at serial number (i) to x), is received against a manufacturer. The manufacturer will be served with suitable show cause notice to give reply within a period of 15 days. After considering the reply/non-reply of the Show cause notice and other facts on records, further action will be taken as deemed fit. In case of Removal/ Suspension/ Blacklisting/ Debarring of the manufacturer, the minimum period will not be less than three years from the date of issue of the order. The re-application/application already under consideration for fresh enlistment of such manufacturer shall not be processed till the period of Removal/ Suspension/ Blacklisting/ Debarring is over. The manufacturer has to apply afresh for enlistment after period of Removal/ Suspension/ Blacklisting/ Debarring is over.

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Procedure for online payment of enlistment fee

1. Log on to home page of NTR portal on <https://bharatkosh.gov.in>.
2. Go to "Quick Payment" link on the home page.
3. Select the Ministry/Department "030-Housing and Urban Affairs" from the drop-down menu.
4. Select the purpose as "Enlistment fee from contractor" from the drop-down menu.
5. Click NEXT and Select the DDO as" 244189-AE(CASH),CSQ, NIRMAN BHAWAN, NEW DELHI" from the drop-down menu.
6. Enter the amount of enlistment fee(s) in the amount window.
7. Under Remarks write "enlistment fee for enlistment of steel manufacturer for the plants (i)...., (ii)...,(iii)...., ".
8. After filling all the mandatory fields in "Depositor's detail", click" Next".
9. Confirm the information entered in the preview and click the "Confirm" button.
10. After confirmation, the portal will open the Payment Gateway.
11. Make payment using the Payment Gateway and download the system generated electronic receipt.



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- 3. SPECIAL CONDITIONS FOR PREVENTION OF AIR POLLUTION AS PER DIRECTIVES OF NATIONAL GREEN TRIBUNAL (NGT):**
- 3.1. The contractor shall not store/dump construction material or debris on metalled road.
 - 3.2. The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
 - 3.3. The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.
 - 3.4. The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purpose or are carrying construction material like cement, sand and other allied materials are fully covered. The contractor shall take all necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air / contaminate air.
 - 3.5. The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
 - 3.6. The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relating to dust emission.
 - 3.7. The contractor shall ensure that C&D waste is transported to the Municipal C&D waste disposal site or as directed by the Engineer-in-charge and due record shall be maintained by the contractor.
 - 3.8. The contractor shall ensure compulsory use of wet jet in grinding and stone cutting.
 - 3.9. The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines.
 - 3.10. The contractor shall carry out on road inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
 - 3.11. The contractor shall ensure that all DG sets comply emission norms notified by MoEF.
 - 3.12. The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 KMPH. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
 - 3.13. The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
 - 3.14. The paving of the path for plying of vehicles carrying construction material is more permanent solution to dust control and suitable for longer duration projects.

C3. LIST OF PREFERRED MAKES FOR CIVIL WORK

The preferred makes of materials for use in the work are specified in the table below. In general, only BIS-marked materials shall be used. Non-BIS marked materials may be permitted by the Engineer-in-Charge only where BIS certification is not available for the relevant product category. The Contractor shall obtain prior approval from the Engineer-in-Charge before procuring any material or engaging any specialized agency. Detailed submittals, including catalogues, highlighted specifications, and scope of work of the specialized agency, shall be submitted for approval. Samples of all proposed materials shall be submitted for approval prior to procurement. Materials not conforming to the contract specifications or approved samples shall be rejected.

The listed makes are indicative. Equivalent materials from reputed manufacturers conforming to the technical specifications may be considered, subject to non-availability of the specified makes in the market or their inability to meet project requirements within the stipulated time, and with prior approval of the NIT approving authority, as recommended by the Engineer-in-Charge as per contract conditions. Such proposals shall be submitted at least one month in advance of the requirement at site. If the approved alternative make is of lower cost than the specified make, the corresponding cost adjustment shall be affected.

The Contractor remains fully responsible for ensuring the quality and performance of all materials, irrespective of their inclusion in the preferred makes list. Necessary quality checks and due diligence shall be carried out before use.

S. No.	Material	Preferred Make
1.0	Excavation	
(i)	Anti-Termite Pesticides	Bayer, FMC India, Hindustan Insecticides
(ii)	Pile Integrity Testing	CBRI, AIMIL, NDM Technology, Geo-Dynamic, AvanTech Engg. Consortium Pvt. Ltd.
2.0	Concrete Work	
(i)	Ordinary Portland Cement / Portland Pozzolana Cement.	ACC, Ultratech, Ambuja, Birla, J K Lakshmi
(ii)	White Cement	Birla White, J K White, Ultratech
(iii)	Construction Chemicals / Admixtures / Plasticizers / Super Plasticizers/Curing compounds	BASF, FOSROC, Endura(PJL), Mapei, MC Bauchemie, Weber (Saint Gobain), Sika, MYK, Asian paints, Ferrouscrete,
(iv)	Precast Cover Blocks	ACC, Nuvoco, Modi Cover blocks, Steelmax
3.0	Reinforced Cement Concrete	
(i)	TMT steel /Low Alloy Steel reinforcement Bars	SAIL, RINL, TATA, JSW & JSPL
(ii)	Mechanical Couplers for Reinforcement	Dextra India, Sanfield, G-Tech
(iii)	Anchor fastener, Rebar chemical/Mechanical Fastener, Core Cutting, Expandable Fastener	Hilti, Fisher, Bosch, Wuerth

(iv)	Ready Mix Concrete Plants	ACC, Ultratech, JK or own Batch Mix Plant with appropriate capacity to be set up by contractor at or away from the site
(v)	Aluminium customized Shuttering	S-Form, MFE, Eins Technik Pvt. Ltd. ALFOAC
4.0	Water Proofing	
(i)	Crystalline Water Proofing Compound	Penetron, Xypex, Kryton (Dosage As Per Manufacturer Specification Or That Required To Achieve Performance Criteria Of DSR Item 22.22 I.E. More Than 90% Permeability Reduction And Resistance To Hydrostatic Pressure Up To 16 Bar, Whichever Is More)
(ii)	Water swellable hydrophilic waterstops tape (Bentonite Based) for Construction Joints	Penetron, Xypex, Kryton
(iii)	Crystalline Waterproofing Coating	Penetron, Xypex, Kryton
(iv)	High Strength Crystalline Mortar	Penetron, Xypex, Kryton
(v)	Waterproofing Self-adhesive & (HDPE) Membrane	Fosroc, Pidilite, Mapei, Cico, MYK arment, Technonicol
(vi)	Polymer Modified Cementitious Grout	Penetron, Tikidan, Fosroc, Pidilite, Cico
(vii)	Waterproofing hybrid Polyurea	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico, MYK arment, Technonicol
(viii)	Double Component Liquid PU Elastomeric Membrane (spray applied)	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico, MYK arment, Technonicol
(ix)	Acrylic polymer modified Cementitious Coating	Tikidan, Fosroc, Pidilite, Cico
(x)	Expanded polystyrene sheet (EPS) and Extruded Polystyrene Sheet (XPS)/ Dimple board / Drainboard	Fosroc, Tikidan, Pidilite , Virendra Textile, Ovidrain, Supreme, Insuboard, Owens Corning, Shalimar, Cico, MYK arment, Technonicol
(xi)	Food Grade Epoxy Coating	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico
(xii)	Non-Toxic Epoxy Coating	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico
(xiii)	Bituminous Epoxy Coating	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico
(xiv)	Backer Rod	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico
(xv)	Polysulphide Sealant for Joints	Fosroc, Pidilite, Weber (Saint Gobain), Mapei, Cico

(xvi)	Water proofing compound	Fosroc, Pidilite, Penetron, Mapei, Weber (Saint Gobain), , Cico
(xvii)	Polyurethane over deck insulation foam	Fosroc, Penetron, Cico, MYK arment
(xviii)	PVC water stops	Jyoti rubber, Maruti rubber, Fosroc, Sika, Master Builder, Kantaflex
(xix)	Micro Concrete	Sika, Fosroc, Basf, Myk Arment, Ultratech, Ferrouscrete
5.0	Masonry Work	
(i)	AAC Blocks	ACC, Tata Tiscobuild, Ultratech, Ferrouscrete, Birla Aerocon, JK Lakshmi
(ii)	AAC Block adhesive	Ultratech, Ardex Endura, Ferrouscrete, Weber (Saint Gobain), Asian paints, Mapei
6.0	Steel Work	
(i)	Structural Steel Sections / Tubular Sections	SAIL, Tata Steel, RINL, JSPL, JSW, APL APOLLO
(ii)	Dash / Anchor Fasteners, Rawl Plug	Hilti, Fisher, Bosch, Wuerth
(iii)	EPDM Gasket	Schuco, Hanu, Raven, Anand
(iv)	Metal deck profile sheet	Ezydeck of TATA , Lloyd Superdeck, JSW
(v)	Roofing Steel Sheet (Precoated)	Tata Bluescope Steel Ltd., Jindal Steel, JSW Steel
(vi)	Polycarbonate Sheet	GE-LEXAN, Polygal, Tuflite Dalphalon, Coxwell
7.0	Aluminium Work	
(i)	Aluminium Extrusions	Hindalco, Jindal, NALCO
(ii)	Anodised Aluminium Hardware (Heavy Duty)	HARDIMA, EVERITE, Alu Alpha, Hindalco, Pulse of LGF Sysmac
(iii)	Alluminium Door & Window Systems	Schuco, Technal, Eternia-Hindalco, AIS Windows, Alupure, Axsys, A2Z Infra Solutions, Pabros
(iv)	Aluminium Glass Facade & Structural Glazing Systems	Schuco, Technal, Eternia-Hindalco, Dow, Lindner AG, Art N Glass, AIS Window system, A2Z Infra Solutions, Pabros
(v)	Aluminium Composite Panels / Honeycomb Composite Panels / Aluminium-HPL Panels	Allucobond, Alstone, Aludecor, Kalco, Alutech, Virgo , Alumaze, VIVA
(vi)	Metal (Aluminium) Facade Panels	Hunter Douglas, Dwall Metallic, Lindner AG, Anakon, Hindalco
(vii)	Silicone Sealant / Weather Sealant / Fire Sealant / Polysulphide Sealant	Alstone, Sika, Dow corning, Choksey, Hilti, Wuerth (Promat), GE Plastics, Pidilite, FOSROC, BASF
8.0	Flooring	

(i)	Ceramic glazed & Vitrified wall / floor Tiles (Antiskid / Matt / Glossy)	Manufactured in own mother plant by : Kajaria, Johnson, Somany, Nitco, Vermora, Orient bell, AGL, Simero
(ii)	Epoxy Grouts / Tile adhesive / Polymer modified cementitious grouts/	Ardex Endura, Ferrouscrete, MYK laticrete, Pidilite, FOSROC, Sika, Weber (Saint Gobain), Asian paints, UltraTech
(iii)	Engineered wood / Wooden Laminated Flooring	Vista, Action Tesa, Pergo, Apex, Greenply,
(iv)	Floor hardener	Ardex Endura, Weber (Saint Gobain), MC Bauchemie, Ferrouscrete, UltraTech
(v)	Heat Resistant Tiles	Kajaria, Johnson, Somany, Nitco, Vermora, Orient bell, AGL
(vi)	Vinyl Flooring (Gym Flooring)	Forbo, Ebaco, Armstrong, Tarkett, LG, Gerflor, Polyflor
9.0	Roofing / False Ceiling / Partition EPF	
(i)	GRG (Glass Fibre Reinforced Gypsum) false ceiling with GI grid system	Diamond ceilings, Saint Gobain, Armstrong, Hunter Douglas
(ii)	Calcium Silicate / Mineral Fiber False Ceiling Tiles and frame work	Saint Gobain, Armstrong, Aerolite, Ramco Hilux, USG Borals, Anakon, Dexune, Aerolite
(iii)	Gypsum Board False Ceiling/Partition and frame work	Saint Gobain Gyproc., USG Boral Armstrong, Knauf AMF, Anakon, Dexune, Western, Gyptech
(iv)	Metal / U-Baffle / Open Cell / Wooden Laminated false ceiling i/c framework	Diamond ceilings, Armstrong, Hunter Douglas, Knauf, Gyptech, Tranquil
(v)	Fibre Cement Board	HIL (Birla Aerocon), Bison (NCL), RAMCO Hicem, Everest, Visaka Industries, Dexune
10.0	Doors / Windows / Wood work / Furniture	
(i)	Flush Door Shutter	Century, Greenply, Archidply, Duro
(ii)	Ply Wood / Block Board	Century, Greenply, Bhutan, Archidply
(iii)	Laminated Particle Board / veneered Particle Board	Greenlam, Century, Archidply, Merino
(iv)	Laminates/Veneers	Greenlam, Century, Archidply, Merino, Virgo
(v)	Acrylic sheet/Acrylic laminate	Rehau, Opulux, Treelam, Praveedh Décor, EGR, Virgo
(vi)	Wood Plastic Composite (WPC) Board/Door Shutter/Door Frame	Century, Greenply, Floresta, Alstone
(vii)	Factory made wooden Door Frames & Shutter (Except Flush door)	D S Doors, Duro, Ambika Wood, Shreeji Woodcraft, SM Corporation, Jayna, Neelkanth wood industries
(viii)	Moisture resistant HDF/MDF/BOILO	action TESA, GREENPANEL, CENTURY

AE (E)

EE&SM(E)

AE(C)

EE&SM(C)

	board	
(ix)	OEM for Factory made kitchen cabinets, wardrobes etc.	Godrej interio, Durian, Sleek by Asian paints, Brown crust, Neelkanth wood industries, Rajdhani Furniture Pvt. Ltd.
(x)	UPVC Doors & Windows	Fenesta, VEKA, KOMERLING, Aluplast, Deceuninck, Saint Gobain, Prominace, Duroplast,
(xi)	G.I. Steel Door Frame	Kutty Doors, Shakti Hormann, Metdoor, NAVAIR, Synergy Thrislington, Sukriti
(xii)	Fire Rated Metal/Wooden/Acoustic Doors (Glazed/Unglazed/sliding)	Shakti Hormann, Pacific, Navair, ASES, Sukriti
(xiii)	Fire Rated Glass	SCHOTT, Saint Gobain, ASAHI, Pyroguard
(xiv)	Hardware for Fire Check Doors	Dorma, Hafele, Assa Abloy, Geze, Hormann, Becker FS
(xv)	S.S. Hardware, Door & Window Fittings, Hinges	Dorma, Godrej, Hafele, Dorset, Becker FS, Kich
(xvi)	Brass Hardware	Magnum (Mukund Overseas), Artistick's (Artistic Art Forum), EPPW, Décor, Palladium
(xvii)	Friction Stay Hinges/Soft closing spring hinges/SS kitchen basket/ Telescopic drawer channel	Hettich, Kich, Hafele
(xviii)	Floor Spring / Door Closer	Godrej, Dorma, Hafele, GEZE, Assa Abloy, Dorset, Becker FS, Kich
(xxiv)	Storage - Compactors, Metal Almirah etc.	Godrej, Compress, HNI, Integrity
(xxv)	Aluminium/U-PVC Doors & Windows Hardware	Rotto, Mccoy 8M, Oben
11.0	Finishing Works	
(i)	Polymer added Ready mix plaster	Ardex Endura, Ferrouscrete, MYK arment, Pidilite, FOSROC, Sika, UltraTech
(ii)	Gypsum Plaster	Saint Gobain (Elite 90), Ardex Endura, Pidilite, FOSROC, Ferrouscrete
(iii)	Polymer modified self-curing Mortar	Saint Gobain (Elite 90), Ardex Endura, Pidilite, FOSROC, Ferrouscrete, Berger
(iv)	Cement Primer	Nerolac, Berger, Berger, Asian paints, Dulux, Acro paints,
(v)	Cement Based & Acrylic Wall putty	Birla, JK White, Asian paints, Ferrouscrete, Acro Paints, Weber (Saint Gobain),
(vi)	Oil Bound Washable Distemper	Asian paints, Nerolac, Berger, Dulux ICI,
(vii)	Dry Distemper	Asian paints (Professional Acrylic Distemper),

AE (E)

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		Nerolac: (Beauty Acrylic Distemper), Berger (Bison Acrylic Distemper), Dulux ICI (Maxilite)
(viii)	Acrylic Distemper (washable/ Real mix/ Low VOC)	Asian paints (Tractor Aqua Lock Paint), Berger (Commando) Acro Paints (Aqualin AWD) or equivalent paints of Nerolac or ICI-Dulux,
(ix)	Acrylic Emulsion Paints	Asian paints (Professional Premium Interior Emulsion Paint), Nerolac (Beauty Gold), Berger (Rangoli total care), ICI-Dulux (Super Cover),
(x)	Texture Finish	Asian paints, Bakelite & Hylam, Spectrum, Heritage, Birla Opus, Berger
	Exposed Concrete Texture Finish	Ultratech Texture Paints, Armourcoat, Oikos, Heritage, Spectrum, Berger
(xi)	Steel Primer (Red Oxide Zinc Chromate Primer)	Asian paints, Nerolac, Berger, ICI-Dulux
(xii)	Synthetic Enamel Paint	Asian (Apolite Premium gloss enamel), Nerolac (Synthetic Hi gloss), Berger (Luxol Hi gloss), ICI-Dulux (Gloss Synthetic Enamel),
(xiii)	Paint- Texture Concept Paints (Interior)	Asian paints, Birla Opus, Berger,
(xiv)	Paint- Anti carbonation paint	Fosroc, Pidilite, BASF, Asian pants, Sika, Berger
(xv)	Wood Primer	Asian paints, Berger, ICI-Dulux, Nerolac.
(xvi)	Melamine Polish for wood work	Asian Paints Melamine Gold, Wudfin of Pidilite, Timbertone of ICI-Dulux, MRF
(xvii)	PU Polish for wood work	ICA, MRF, Asian, Berger
(xviii)	Epoxy Paint	Asian, Nerolac, Berger, ICI, Akzo Nobel, Weber (Saint Gobain)
(xix)	Fire Resistant Paint	Asian paints, Akzo Nobel, Viper
(xx)	Thermoplastic Paint	Asian, Nerolac, Shalimar, Berger, Dulux
(xxi)	Wood Adhesive	Fevicol, Araldite, kerakol, Astral, 3M
(xxii)	POP	Ferrouscrete, Birla, JK White
12.0	Water Supply & Sanitary Works	
(i)	Stainless Steel pipe and fitting of grade 316L as per EN-10312 standard for water supply line & Fittings	SAIL (Salem Steel), Jindal, J-Press, Viega, Alfa press, Aquinox india
(ii)	G.I. Pipe	Tata Steel, Jindal Pipes, Surya Roshni, APL Apollo Tubes
(iii)	GI Pipe Fittings	Unik, Zoloto, Surya, Jinda Pipes, Tata Steel
(iv)	U-PVC pipe and Fittings	Supreme, Finolex, Astral, Prince, AKG, Ashirvad, Birla

		HIL
(v)	C-PVC pipe and Fittings	Supreme, Finolex, Astral, Prince, AKG, Ashirvad, Birla HIL
(vi)	M.S. Black Pipes	Tata, Jindal, SAIL, APL Apollo, Surya
(vii)	CP Fittings (Premium range)	Kohler, Jaquar, Grohe, Kerovit, Roca
(viii)	Sanitary ware / Fixtures / Fittings (Premium range)	Kohler, Grohe, Kerovit, Hindware, Jaquar, Parryware, Cera
(ix)	Urinal Frosted Glass partition	Greenlam, Jaquar, Merino, Fundermax, Cera,
(x)	Sensor Operated Urinal	Jaquar, Hindware, Roca, Kohlar, Cera, Kerovit, Euronics
(xi)	Glass Mirror	Saint Gobain, Modi Guard, Atul, Cera
(xii)	Specially abled Fitting	Pressalit, Hindustan, Cardin, Euronics
(xiii)	Gun Metal Valves/Sluice Valves/ Air Release Valves	Zoloto, Audco (L&T), Castle, Leader Valves, SKS
(xiv)	Sluice Valve / Pressure Reducing valve / Non-Return valve / check valve / Butter fly valve / ball valve	Zoloto, Kirloskar, Leader Valves, Zoloto, SKS, Castle, Audco (L&T)
(xv)	Insulation for external / exposed hot water pipes	KAIFLEX, ARMAFLEX, CAREFLEX
(xvi)	Pipe protection for external water supply pipes	PYPKOTE, ARMAFLEX, AKPOLYKOTE
(xvii)	Water Meter	Prima, Kranti, Leader, Zoloto, Dashmesh
(xix)	Brass stop & Bib Cock	Zoloto, Sant, L&K, Leader,
(xx)	Brass Ferrules	Dhawan Sanitary Udyog (PRIMA), Annapurna, Kalsi
(xxi)	PVC water storage tank	Syntex, Amitex, SPL
13.0	Drainage	
(i)	Soil Waste / Vent Pipes and Fittings:	
	a) Hubless Centrifugally Cast Spun Iron Pipe and fittings	NECO, SKF, Hepco, Saint Gobain, RPMF
	b) Centrifugally (Spun) CI Pipes Class 'LA'	Kesoram, Electro Steel Castings Ltd., NECO, RPMF
(ii)	C.I. Manhole covers, frames & GI Gratings	NECO, BIC, RIF, SKF, Hepco, Kapilansh,
(iii)	Unplasticized Non-Pressure Polyvinyl Chloride (PVC-U) Pipes underground conforming to IS: 15328-2003 & Fittings	Supreme, Finolex, Astral, Prince, AKG, Ashirvad
(iv)	Low noise system rain water pipes and fittings made of mineral	Supreme, Finolex, Astral, Prince, AKG, Ashirvad

	reinforced Poly Propylene	
(v)	Drainage AC/HDPE Pipes	Jain Pipes, Oriplast, Reliance, MAZZA AC Pipes, Supreme
(vi)	DI Pipes & Fittings	Supreme, Electrosteel, Jindal, TATA DUCTURA, Kesoram
(vii)	SFRC Manhole covers & gratings	KK, JAIN, PARGATI
(viii)	FRP Manhole covers, Drain Covers & gratings	Dudhi, Neco, HP, Indogyp
14.0	Stainless Steel & Glass Works	
(i)	Modular SS-304/316 Grade / Glass Railing with SS-304/316 grade Hardware	Dorma, Jindal, GEZE, Hafela, Kich, Konzept
(ii)	Stainless Steel Sink (Out of Salem steel)	Neelkanth, Niralli, Jayna, Hindware
(iii)	Toughened/Float Glass	Saint Gobain, AIS Glass, Modi Guard, Gold Plus
(iv)	High Performance Glass	Saint Gobain, AIS Glass, Modi Guard, Gold Plus
(v)	Lacquered Glass	Saint Gobain Glass, AIS Glass, Art N Glass, Guardian
(vi)	Glass Processor for making DGU/Toughening	Art N Glass, Shankar Tuff, Sheeshmahal, Shivshakti, GSC, Kaimapnat Glass, SK Tuff, AIS Glass
(vii)	Frosted film	LG, 3M, Garware, Dupont, Saint Gobin
15.0	Miscellaneous	
(i)	Terracotta Cladding Tiles	Nuvocotto, Terracon, Kajaria, Johnson, Hunter Douglas, Moeding, Anakon, Terreal
(ii)	SS Dry Cladding Anchor with SS Clamp	Hilti, Fisher, Bosch, Wuerth
(iii)	Solid Acrylic Surface Boards	Dupont, LG Himacs, Neonnex, Hanex, GMGR India
(iv)	Modular Expansion / Seismic Joint System	Herculus, Sanfield, Vexcolt, MigUA, Katanaflex, Inprocorp, Bizzar
(v)	Solid Surface (Corian)	Dupont, Neonnax, LG, Samsung
(vi)	Window Blinds	Vista, Deck, Hunter Douglas, MAC, TRAC
(vii)	Fire Sealant	Hilti, 3M India, Wuerth, Fischer
(viii)	Modular Rainwater Harvesting system	Retas Enviro Solutions Pvt Ltd, Bantair Pvt Ltd, Adwyn Impex Pvt Ltd, Life green system Ltd
(ix)	Factory made WPC jali	Archidply, Century, Greenlam, Floresta, Alstone
(x)	Wall Paper	D'décor, Lifencolours, India Circus, Ego, Vescom, Nilaya by Asian Paints, Muraspec, Marshalls
(xii)	Wall Guard/Column Guard/Corner guard	Wallpro, C/S Group, SPM International

(xiii)	Expansion filler board	Supreme, Insuboard, Supreme, Shalimar, Owens corning, Technonicol
(xiv)	Concrete / HDPE/Grass grid pavers	Ovilite Industries, Eco Vision Industries, Dalal, Unistone, NTPC Limited
(xvi)	Expansion Joint filler / Joint covers	Vexcult International Ltd, Construction Specialities, Sainfield, Hercules, MIGUA, Mapei, Balco India, Z-tech, Inprocorp, Moldo Sports
(xvii)	Poly-sulphide Sealant for Joints joint width up to 25 mm	Pidilite, Sika, Dow Corning, Wacker, Ferrouscrete
(xviii)	Window Roller/Zebra Blind/Curtains	Aerolux, Hunter Douglas, Deck, D'décor
(xix)	Footpath Tiles & Paver	NTPC Limited, Dalal, KK, Unistone
(xx)	Precast GRC / Sand Stone Jali (Screen)	Unistone, Dalal, Birla GRC, Sanderson
(xx)	Signages	247 Sign (Ergomax), Klikin (Ins & Out), Cosign India
(xxi)	Porta Cabin/ PUF / Sandwich Wall Panels:	Supersun Prefab Private Limited, Lloyd Insulations (India) Limited, Strength Prefab Solution Pvt. Ltd. Metecno, Jindal Mectec,

PART - D

**ADDITIONAL CONDITIONS &
SPECIFICATIONS FOR E&M WORKS (MINOR
COMPONENT)**

D1. ADDITIONAL CONDITIONS & SPECIFICATION FOR E&M WORKS

1. CPWD General Specifications for Electrical Works (Part I for Internal) - 2023, (Part II for External) - 2023, (Part III for Lift & Escalators) - 2003, (Part IV for Sub Station) - 2013, (Part V for Wet Riser & Sprinkler System) - 2020, (Part VI for Fire Detection & Alarm System) - 2018, (Part VII for DG Sets) - 2013, (Part VIII for Gas Based Fire Extinguishing System) - 2013 and CPWD General Specifications for HVAC Works – 2017 or latest version of above specifications as issued / amended up to date (hereinafter to be collectively referred to as 'CPWD Specifications') and should also comply with relevant provisions of the Indian Electricity Rules and Acts as applicable. Wherever CPWD Specifications are silent, the latest BIS Codes/Specifications, National Building Code or any other specification shall be followed.
2. The order of preference in case of any discrepancy as indicated in condition No. 8.1 under "Conditions of Contract" given in standard CPWD Contract form may be read as the following:
 - i) Scope of work, Minimum Requirement & Specifications for E&M Works.
 - ii) Conceptual drawings and Specifications mentioned in the Drawings.
 - iii) Schedule of Quantities
 - iv) Additional & special Conditions for E&M Works
 - v) Standard General Conditions of Contract
 - vi) CPWD Specifications with up to date Correction slips
 - vii) BIS Specifications/Provisions
 - viii) National Building Code
 - ix) National electrical code of India
 - x) Manufacturers specifications.
 - xi) Sound Engineering practices or well-established local construction practices as decided by the Engineer-in-charge.
3. A reference made to any Indian Standard Specifications in these documents, shall imply reference to the latest version of that standard, including such revisions/amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.
4. The main contractor shall engage appropriate OEM of approved make for specialized works of electrical work. The main contractor shall not indulge in procurement of electrical items and getting the work done on labour contract with the OEM/electrical contractor. The whole electrical component shall be executed by the eligible electrical contractor/ OEM on a turnkey basis i.e. procurement of material & engaging labour. The associate electrical contractor shall submit the completion certificate of electrical work executed by him along with necessary test reports, completion plan etc.
5. The contractor shall take all safety precautions to avoid accidents by exhibiting caution boards, red flags, red lights and by providing necessary barriers and all other measures required from time to time. The contractor shall be responsible for all damages and accidents due to negligence on his part.
6. The contractor shall give due notices to Municipality, Police and/or other authorities that may be required under the law/rules under force and obtain all requisite permissions/licenses for temporary obstructions/enclosures and pay all charges which may be livable on account of his

execution of the work under the agreement. Nothing extra shall be payable on this account.

7. The contractor shall leave such recesses, holes, openings, etc., as may be required for the electric, air-conditioning and other related works. (For this purpose, any required inserts, sleeves, brackets, conduits, base plates, insert plates, clamps etc. shall be arranged by the contractor and fix the same at the time of casting of concrete, stone work & brick work, if required, and nothing extra shall be payable on this account.
8. The contractor shall give a trial run of the equipment and machinery for establishing its capability to achieve the specifications within laid down tolerances to the satisfaction of the Engineer-in-charge before commencement of work.
9. The work will be carried out in close coordination with the building work and other agencies. Conduits will be laid in the slab within the specified time and it will have to be ensured that the casting of slabs is not delayed for want of laying of conduits. The conduits will also be laid in walls before the Plaster work is undertaken so as to avoid breaking cutting of plaster while making chase for laying of conduits subsequently. The contractor will have to employ adequate labour for carrying out the work. No claim regarding the idle labour for any reason will be entertained by the Department.
10. No tools and plants including special T&P etc. shall be supplied by the department and the contractor will have to make his own arrangements at his expenses.
11. All tools, plant and machinery provided by the contractor shall, when brought at the site, be deemed to be exclusively intended for the construction and completion of this work and the contractor shall not remove the same or any part thereof (save for the purpose of moving it from one part of the site to another) without the consent of the Engineer-in-charge.
12. All materials shall be got checked & approved by the Engineer-in-charge on receipt of the same at site before use and rejected material is to be removed from the site immediately.
13. No foreign exchange shall be made available by the department for the purchase of equipment, plants, machinery, materials of any kind or any other items required to be carried out in execution of work.
14. The contractor shall carry out his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor (s) or by the Engineer-in-charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed, so as not to interfere with the operations of other contractors, or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the entire satisfaction of Engineer-in-charge.
15. All items which are not covered while carrying out electrical work shall be removed and shall be cleared by the contractors as soon as the work is completed.
16. The contractor shall give the Engineer-in-charge in every fortnight, a progress report of the work done during the previous fortnight. The progress of work will be reviewed periodically by the Engineer-in-charge with the contractor and shortfalls, if any, sorted out. The contractor shall thereupon take such action as may be necessary to bring back his work to schedule without any additional cost to the department.
17. It shall be responsibility of the main contractor to sort out any dispute involved with the associated contractor without any time and cost overrun to the department. The main contractor shall be solely responsible for settling the dispute/litigation arising out of his agreement with the associate contractor. The contractor shall ensure that the work shall not suffer on this account.
18. The contractor shall quote his rates considering the specifications, terms & conditions and

particular specifications and special conditions etc. and nothing extra shall be payable whatsoever unless otherwise specified.

19. The main contractor shall be responsible for coordinating the activities of all works and essential progress of works as per milestone and laid down program.
20. The contractor shall be responsible for the watch and ward of the site/property/material provided by him and materials issued by the department against pilferage and breakage during the period of execution and thereafter till the work is completed and physically handed over to the department.
21. Samples of all materials, fittings and other materials/articles required for execution of the work shall be got approved from the Engineer-in-charge. Materials/articles manufactured by the firms of repute as indicated in tender documents and approved by the Engineer-in-charge shall only be used.
22. The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material or work beyond set out tolerance limits shall be summarily rejected by the Engineer-in-charge.
23. The contractor shall be required to make a sample flat for each type at the earliest opportunity using all approved materials for approval of Engineer in charge before mass scale finishing works are taken up.
24. Even ISI marked materials shall be subjected to quality test at the discretion of the Engineer-in-charge besides testing of other materials as per the specifications described for the item/material. Whenever ISI marked materials are brought to the site of work; the contractor shall, if required by the Engineer-in-charge, furnish manufacturers test certificates to establish that the materials procured by the contractor for incorporation in the work satisfy the provisions of IS codes relevant to the material and/or the work done.
25. The contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work.
26. The firm shall use only electrically operated chase cutting machine for cutting the chases in the wall for recessed conduit wiring.
27. The contractor will have to make his own arrangement for storage of materials. No storage space shall be provided by department.
28. The contractor will have to make his own arrangement for water and power supply for execution of works.
29. The contractor will have to ensure that the skilled labour i.e. wireman etc., Engaged in the execution of the work must possess valid electrical license, otherwise he will not be permitted to execute the work.
30. The associate contractors executing the electrical works must possess the valid electrical contractor license otherwise they will not be permitted to execute the electrical works.
31. The contractor shall be responsible for removal of all defects in the work during the guarantee/warranty period. The department shall carry out routine maintenance only. However, if any failure is noticed during this period which is attributable to poor quality of material and bad workmanship, the contractor will be required to rectify the same at his own cost, failure of which the department will be at liberty to get the defects rectified at the risk & cost of the contractor. The contractor will also be required to carry out his own inspection/testing during the guarantee/warranty period and attend to any defect taking place during this period.
32. Priority to arrange the material shall be decided by the department. However, material required for

the work shall be brought at site only at the appropriate time keeping in view the progress of building works as well as Electrical & Mechanical works. Decision of Engineer-in -charge in this regard shall be final.

33. The contractor has to intimate his authorized representative, who will be receiving instructions in his absence. The contractor /his authorized representative is bound to sign the site order book as and when required by the Engineer-in-charge and to comply with the instructions therein.
34. Suitable back plates providing for fixing the wall brackets and ceiling flush fittings shall be supplied by the contractor free of cost.
35. It shall be responsibility of contractor to provide polythene/PVC plastic cover for all SDBs/meter boards/feeder pillars/panels etc. so as to protect them from wear & tear/damage during execution stage. Contractor shall provide the covers for the materials if any being supplied departmentally also. Nothing extra shall be paid on this account.
36. Contractor is fully responsible for any kind of damage to the LT/HT cable during execution of work.
37. A suitable brass/tinned copper neutral link shall be fixed at suitable place in the Metallic outlet boxes of all sizes to terminate neutral wire properly. Nothing extra shall be paid on this account.
38. Colour coding shall have to be adopted in the wiring system as per specification.
39. Suitable crimping tools shall be used for crimping the lugs/thimbles/ferrules. Nothing extra shall be paid on this account. The lugs/thimbles/ferrules pressed by conventional/ordinary pliers shall not be accepted.
40. A suitable brass/tinned copper neutral link shall be fixed at suitable place in the Metallic outlet boxes of all sizes to terminate neutral wire properly. Nothing extra shall be paid on this account.
41. An earth termination with earth stud of brass/tinned copper i/c 2 No. metallic washers or suitable earth bar of Brass/tinned copper with tinned copper thimbles/ferrules/lugs should be suitably fixed at suitable place in the Metallic outlet box for termination of protective earth conductor. Nothing extra shall be paid on this account.
42. In the outlet boxes, phase from one switch to other switch shall be looped with suitable size of solid copper conductor. Nothing extra shall be paid on this account. Stranded conductor shall not be accepted.
43. Only required number of knockouts should be removed from Metallic outlet boxes for entry of conduits. If more than required number of knockouts are removed, the Metallic outlet box shall not be accepted.
44. Separate G.I. boxes shall be used for staircase light switches and bell push. Nothing extra shall be paid on this account.
45. Metal sheath of Co-axial T.V. cable shall be terminated using 'U' shape thimble/lugs/ferrules. Nothing extra shall be paid on this account.
46. To facilitate drawing of wires 16/18 SWG GI fish wire be provided along with laying of recessed conduit. Nothing extra shall be paid on this account.
47. Cable connection to switch gear is deemed to be included in the item of end termination. No extra payment shall be made for that.
48. The contractor is advised to visit the site of work to have an idea of the execution of the work; failure to do so shall not absolve their responsibility to do the work as specified in agreement.
49. All DB's shall have MCB/MCCB in incomer along with RCCB's in all outgoing phases.

50. Rates:
- 50.1. The work shall be treated as on works contract basis and the rates tendered shall be for complete items of work (except the materials, if any, stipulated for supply by the department) inclusive of all taxes (including works contract tax, if any), duties, and levies etc. and all charges for items contingent to the work, such as packing, forwarding, insurance, freight and delivery at site for the materials to be supplied by the contractor, watch and ward of all materials (including those supplied by the department, if any) for the work at site etc.
- 50.2. Prices quoted shall be firm.
51. **Taxes and Duties:**
- 51.1. Rates are inclusive of GST and all other Taxes, duties, levies and royalties and nothing extra shall be payable to the contractor on account of this.
- 51.2. The GST shall be deducted from the bills of the contractor as applicable in at the time of payments.
52. **Completeness of Tender:**
- All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not.
53. **Works to be done by the contractor:**
- Unless and otherwise mentioned in the tender documents, the following works shall be done by the contractor, and therefore their cost shall be deemed to be included in their tendered cost:-
- (i) Foundations for equipment and components where required, including foundations bolts.
 - (ii) Cutting and making good all damages caused during installation and restoring the same to their original finish.
 - (iii) Sealing of all floor openings provided by him for pipes and cables, from fire safety point of view, after laying of the same.
 - (iv) Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/distribution gear items, cubical switchboard etc. Damages to finished surfaces of these items while handling and erection, shall however be rectified to the satisfaction of the Engineer-in-Charge.
 - (v) Testing and commissioning of completed installation.
 - (vi) Storage space for all equipment, components and materials for the work
54. **Storage and Custody of Materials:**
- The contractor has to make his own arrangement for the storage of the material at site & necessary watch and ward of the electrical installation during the execution of work till the same is handed over to the department. No extra payment will be made on this account. The storage space shall however be arranged by the department at site, if available.
- The main contractor shall arrange for proper storage of the electrical fans and fittings at site and that double lock system shall be arranged for the fans and fittings after receipt at site until the time they are taken for installation. The contractor shall however be responsible for proper

storage and safe custody of the same till their installation and handing over to the department.

55. **Electric Power Supply and Water Supply:**

Power and water supply will be arranged by the contractor at the site for installation purpose.

However, for final testing purpose after complete installation of the electrical items, electricity supply will be made available free of cost to the contractor. Contractor will take due care to ensure safety of electrical installation during execution of work.

56. **Tools for handling and Erecting:**

All tools and tackles required for handling of equipment and materials at site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the contractor.

57. **Payment Terms:**

Payment shall be made as per the relevant clauses of form PWD 7/8 forming part of the tender documents.

58. **Co-ordination with other agencies:**

The contractor shall co-ordinate with all other agencies involved in the building work so that the building work is not hampered due to delay in his work. Recessed conduit and other works, which directly affect the progress of building work, should be given priority.

59. **Care of buildings:**

Care shall be taken by the contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove, at his costs, all unwanted and waste materials arising out of his work, from the site.

60. **Structural Alterations to Buildings:**

- (i) No structural member in the building shall be damaged/altered, without prior approval from the competent authority through the Engineer-in-charge.
- (ii) Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these required modifications, or fresh provisions are required to be made, such contingent works shall be carried out by the contract at his cost.
- (iii) All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains etc. as the case may be, by any suitable means as approved by the Engineer-in-charge without any extra payment.
- (iv) All chases required in connection with the electrical works shall be provided and filled by the contractor at his own cost to the original architectural finish of the buildings.

61. **Addition to an installation:**

Any addition, temporary or permanent, to the existing/ Proposed electrical installation shall not be made without a properly worked out scheme/design by a qualified Electrical Engineer to ensure that such addition does not lead to overloading, safety violation of the existing/ Proposed system.

62. **Work in occupied buildings:**

- (i) When work is executed in occupied buildings, there would be minimum of inconvenience to the occupants. The work shall be programmed in consultation with the Engineer-in-

charge and the occupying department. If so required, the work may have to be done even before and after the office hours.

- (ii) The contractor shall be responsible to abide by the regulations or restrictions set in regard to entry into, and movement within the premises.
- (iii) The contractor shall not tamper with any of the existing installations including their switching operations or connections there to without specific approval from the Engineer-in-charge.

63. Drawings:

- (i) The work shall be carried out in accordance with the drawings and the tender documents and also in accordance with modification thereto from time to time as approved by the Engineer-in-charge.
- (ii) All wiring diagrams shall be deemed to be 'Drawings' within the meaning of the term as used in Clause 11 of the conditions of contract (PWD 7 or PWD 8). They shall indicate the main switch board, the distribution boards (with circuit numbers controlled by them), the runs of various mains and sub mains and the position of all points with their controls.
- (iii) After award of the work, the firm will be required to submit the drawings for the proposed work including layout plan, conduit routes showing location of points and height etc. Work will be carried out as per the approved drawings before start of work.
- (iv) After approval of drawings, agency shall submit 04 copies of drawings to Engineer-in-charge.
- (v) As built drawings shall also be submitted by agency in 04 sets.

64. Conformity to IE Act, IE Rules, and standards:

- 1.2. All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and Indian Electricity Rules, 1956 amended up to date (Date of call of tender unless specified otherwise). List of rules of particular importance to electrical installations under these General Specifications is given in Appendix C for reference.

65. General requirements of components:

- 1.3. **Quality of material:** All materials and equipment supplied by the contractor shall be new. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

66. Inspection of materials and equipment:

- 66.1. Materials and equipment to be used in the work shall be inspected by the departmental officers. Such inspection will be of following categories:

- (i) Inspection of materials / equipment to be witnessed at the Manufacturer's premises in accordance with relevant BIS /Agreement Inspection Procedure.
- (ii) To receive materials at site with Manufacturer's Test Certificate(s)
- (iii) To inspect materials at the authorized dealer's go downs to ensure delivery of genuine materials at site.
- (iv) To receive materials after physical inspection at site.

- 66.2. Adequate care to ensure that only tested and genuine materials of proper quality are used in work shall be ensured by firm. The firm shall ensure that:

- (i) Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
 - (ii) As and when the order is placed for the fittings/ fixtures, cables, switchgears, poles, rising main, other main items etc., its copy shall be endorsed to the CPWD Engineer-in-charge.
 - (iii) The firm will be required to procure material like exhaust fans, MCB's & DB's, switches & sockets, wires & cables, conduits and switchgears etc directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor before installation at site to the department.
 - (iv) Inspection at factory or at godown of the manufacturer, as required, shall be arranged by the firm for a mutually agreed date. Certificate for genuineness of the fittings shall have to provided duly signed by the manufacturer's officer not below the rank of Regional Manager.
 - (v) Delivery of material shall be taken up only with the consent of department, after clearance of the material.
 - (vi) Department shall reserve the right to waive inspection in lieu of suitable test certificate, at its discretion.
- 66.3. Similarly, for fabricated equipment, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.
67. **Ratings of components:**
- 67.1. All components in a wiring installation shall be of appropriate ratings of voltage, current and frequency, as required at the respective sections of the electrical installations in which they are used.
- 67.2. All conductors, switches and accessories shall be of such size as to be capable of carrying the maximum current, which will normally flow through them, without their respective ratings being exceeded.
68. **Conformity to standards:**
- 68.1. All components shall confirm to relevant Indian Standard Specifications wherever existing. Materials with ISI certification mark shall be preferred.
- 68.2. Relevant Indian Standards including amendments or revisions thereof up to the date of tender acceptance shall be applicable in the respective contracts for respective items, firm to ensure its compliance.
69. **Inter-changeability:**
- Similar parts of all switches, lamp holders, distribution fuse boards, Switch gears, ceiling roses, brackets, pendants, fans and all other fittings of the same type shall be interchangeable in each installation.
70. **Workmanship:**
- 70.1. Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall confirm to sound engineering practice.
- 70.2. Proper supervision/skilled workmen: The contractor shall be a licensed electrical contractor of

appropriate class suitable for execution of the electrical work. He shall engage suitably skilled/licensed workmen of various categories for execution of work supervised by supervisors / Engineer of appropriate qualification and experience to ensure proper execution of work. They will carry out instruction of Engineer-in-charge and other senior officers of the Department during the progress of work.

70.3. Use of quality materials: Only quality materials of reputed make as specified in the tender will be used in work.

70.4. Fabrication in reputed workshop: Switch boards and LT panels shall be fabricated in a factory/workshop having modern facilities like quality fabrication, seven tank process, powder/epoxy paint plant, proper testing facilities, manned by qualified technical personnel. These shall be as per make / item approved.

71. **Testing:**

All testes prescribed in this General Specification, to be done before, during and after installation, shall be carried out, and the test results shall be submitted to the Engineer-in-charge in prescribed Performa, forming part of the Completion Certificate.

72. **Commissioning on completion:**

After the work is completed, it shall be ensured that the installation is tested and commissioned.

73. **Completion plan and completion certificate:**

73.1. For all works completion certificate after completion of work shall be submitted to the Engineer-in-charge.

73.2. Completion plan drawn to a suitable scale in A2 Sheet (It shall be laminated if desired by the Site-in-Charge) indicating the following, and three copies of the same shall also be submitted.

- (i) General layout of the building.
- (ii) Locations of main switchboard and distribution boards, indicating the circuit numbers controlled by them.
- (iii) Position of all points and their controls.
- (iv) Types of fittings, viz. fluorescent, pendants, brackets, bulk head, fans, exhaust fans etc.
- (v) Name of work, job number, tender reference, actual date of completion, names of Division/ Sub-division and name of the firm who executed the work with their signature.
- (vi) Cable layout showing general distribution diagram along with position of cable joints, if any.

74. **Guarantees**

The installation will be handed over to the department after necessary testing and commissioning. The installation will be guaranteed against any defective design/workmanship. Similarly, the materials supplied by the contractor will be guaranteed against any manufacturing defect, inferior quality. The guarantee period will be for a period of 5 years for all LED fittings and 36 months for other equipments counted from the date of completion of work. Contractor has to submit warantee certificate from manufacturer/OEM. Installation/ equipment or components thereof shall be rectified/ repaired to the satisfaction of the Engineer-in-charge. The firm will be required to submit guarantee of material from the manufacturer to the department.

75. **INDEMNITY :**

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the department shall not be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipments under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the tenderer due to the above.

76. CPWD General Specification for Electrical Works shall be read as mentioned below (wherever mentioned in NIT documents)

Note: -(Part I for Internal) - 2023, (Part II for External) - 2023, (Part III for Lift & Escalators) - 2003, (Part IV for Sub Station) - 2013, (Part V for Wet Riser & Sprinkler System) - 2020, (Part VI for Fire Detection & Alarm System) - 2018, (Part VII for DG Sets) - 2013, (Part VIII for Gas Based Fire Extinguishing System) - 2013 and CPWD General Specifications for HVAC Works - 2017 or latest version of above specifications as issued / amended up to date.

77. Note: -In case of any ambiguity/ Scope of work/ Specification, superior shall be followed as per approval of engineer-in-charge.

D2. LIST OF PREFERRED MAKES FOR E&M WORKS

The preferred makes of materials for use in the work are specified in the table below. In general, only BIS-marked materials shall be used. Non-BIS marked materials may be permitted by the Engineer-in-Charge only where BIS certification is not available for the relevant product category. The Contractor shall obtain prior approval from the Engineer-in-Charge before procuring any material or engaging any specialized agency. Detailed submittals, including catalogues, highlighted specifications, and scope of work of the specialized agency, shall be submitted for approval. Samples of all proposed materials shall be submitted for approval prior to procurement. Materials not conforming to the contract specifications or approved samples shall be rejected.

The listed makes are indicative. Equivalent materials from reputed manufacturers conforming to the technical specifications may be considered, subject to non-availability of the specified makes in the market or their inability to meet project requirements within the stipulated time, and with prior approval of the NIT approving authority, as recommended by the Engineer-in-Charge as per contract conditions. Such proposals shall be submitted at least one month in advance of the requirement at site. If the approved alternative make is of lower cost than the specified make, the corresponding cost adjustment shall be affected.

The Contractor remains fully responsible for ensuring the quality and performance of all materials, irrespective of their inclusion in the preferred makes list. Necessary quality checks and due diligence shall be carried out before use.

S. No.	Description of Item	Preferred Makes
1.	PVC Insulated FRLS Copper Conductor Wires 1.1 kV Grade (ISI Marked)/ Telephone cable/1.1 KV XLPE (Aluminium/Cu) Cable	Polycab / Havells / KEI / Grandlay / Agilon / Apar
2.	Modular Plate/Modular Switch & Socket/GI Boxes/Fan Regulator/Telephone/RJ-45/Bell	Legrand (Myrius) / ABB (Ivive) / Honeywell (Bienze Pro) / Panasonic (Europa) / Siemens opulez / Northwest (Venia)
3.	MCB /DB/MCB /Isolator/DB/RCCB/ELCB	Legrand / ABB / Siemens / Lauritz Knudsen/Havells / Adhunik / Panasonic
4.	Decorative Pendant Luminaire/Surface Circular Downlighter/1200 mm LED batten/ LED Bulk Head/Decorative Post Top Lantern fitting/ flood light/Mirror Light/Strip Light/Street Light with sensos/wall washer/spot light	Wipro/ Philips/ Regent Lighting/ LT/Havells
5(i).	BLDC Ceiling Fan	BLDC Fans: Havells (Eficiencia DX) / Usha (Technix) / Orient (I-Facon)/ Atomberg (Rense Prime)
5(ii).	Exhaust Fan (ISI Marked)	Crompton (EXHD300-4-1) / Orient Electric (Industrial Heavy Duty 300 mm) / Usha (Turbo Heavy Duty 300 mm) / Almonard (Heavy Duty 300 mm Single Phase)
5(iii).	Fresh air Fan	Usha (Crisp Air LX 250 mm) / Crompton(Ventilus 250 mm) / Orient(Ventilator DX 250 mm – White)
5(iv).	Wall mounted fan	Bajaj (Victor VWR-01), Orient Electric (Wall 44 – 400 mm), Usha (Mist Air Flo 400 mm), Havells (Platina 400 mm)
6.	DWC Hdpe Pipe (ISI Marked)	Rex /Duraline/ Trupati/ Gemini
7.	Non-TTA Panels (Only CPRI approved)	Tricolite/ Neptune/ Milestone/ SPC Electrotech/ Expert Engineers/ Precision Control System /

S. No.	Description of Item	Preferred Makes
		ASPL/RP Control
8.	MCCBs	Siemens / Schneider / Lauritz Knudsen/ Legrand / ABB
9.	Current Transformers & Potential Transformer	Automatic Electric/ Kappa/ Electro Control System
10.	Digital Indicating Measuring Instruments/ Multifunction Meters/ Digital Energy Meter/ Smart meter	Lauritz Knudsen/ Automatic Electric/ ABB/ Legrand / Neptune
11.	Selector Switch	Lauritz Knudsen/ Kaycee/ Siemens/ ABB/ Schneider / Salzer
12.	Indication Lamp & Push Button/ Relay/ Timer/Contactor/	Lauritz Knudsen/ Kaycee/ Siemens /ABB/ Schneider
13.	Cable Trays/ GI Raceway/ Floor Box/ Junction Box & Accessories	Venus/ Slotco/ Advance / RM Con
14.	Capacitor (ISI Marked)	Neptune / Ducati / Siemens/ Lauritz Knudsen/ Schneider /
15.	Cable Gland/ Lugs/Thimbles	Commet/ Dowells/ Raychem/ Gripwell Jainson
16.	Octagonal Steel Pole/ High Mast/Decorative poles	Bajaj/ Keselac/ Volmont/ Surya / Vak/Paruthi
17.	SMF Batteries	Amaron/ Exide/ Amaraia/ Luminous
18.	Heat Shrinkable HT Cable End Termination	Denson/ Raychem/ Capseal
19.	Drinking Water Pumps	Kirloskar/ Mather & Platt/ Grundfoss/ KSB/ Willo
20.	Rigid PVC Conduit Pipes & Accessories (ISI Marked)	Norpack/ Finolex/ Supreme/ Astral/ AKG/ Anchor by Panasonic
21.	G.I Pipe	Tata/ Jindal (Hisar)/ SAIL
22.	Transinet Voltage Suppression	Eaton/ Schneider/ Sevlon
23.	M.S. Conduit & Accessories (ISI Marked)	BEC/ AKG/ STEEL KRAFT/ NIC / RM Con
24.	UPVC Trunking/ Pop Box:	Honeywell/ Legrand/ Hager
25.	chemical earthing	JMV, GPI, APS, GLS, Truepower
26.	Industrial Plug & Sockets (IP-44, IP67), Junction Box (IP-65)	Neptune / Hensel / ABB / Siemens
27.	Electrical Motors	Kirloskar/ Siemens/ ABB/ Crompton / KSB
28.	Submersible Pump	Kirloskar/ KSB/ Grundfoss/ Mather & Platt
29.	Water Cooler	Voltas / Blue Star / Rockwell / USHA / Ultra
30.	Desert Cooler	Crompton (Ozone 75/ACGC-DAC751) / V-Guard (Arido D75 H-N) / Symphony (Sumo 75 XL) / Bajaj (NEX DAC D2 75L)/ Novamax(Kazer 75 L)
31.	Submersible cable	Polycab / Havells / KEI / Grandlay / Agilon / Apar
32.	De-watering pump	Kirloskar/ KSB/ Grundfoss/ Mather & Platt

Note-

1. The CE-cum-ED, CPWD, Gurugram reserves the right to add or delete any materials and makes/brands in the list of preferred makes of materials/brands.
2. All the products approved by CE-cum-ED, Gurugram shall also be applicable for preferred make list.

PART - E

SCHEDULE OF QUANTITIES & PRICE BID

E1 : SCHEDULE OF QUANTITIES (CIVIL WORKS)

Sr. No.	Description of Item	Quantity	Unit	DSR Rate	Amount
1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50m and lift upto 1.5 m, as directed by engineer-in-charge				
1.1	All kinds of soil	423.00	cum	₹129.85	₹ 54,927.00
2	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 for all lift, as directed by Engineer-in-charge.				
2.1	All kinds of soil	90.00	cum	₹177.50	₹ 15,975.00
3	Excavating trenches by mechanical / manual means of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, for all depth, 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 :				
3.1	All kinds of soil				
3.1.1	Pipes, cables etc., not exceeding 80 mm dia.	15.00	metre	₹215.60	₹ 3,234.00
3.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	35.00	metre	₹352.15	₹ 12,325.00
4	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited	79.00	cum	₹196.00	₹ 15,484.00

	layer by ramming and watering, lead up to 50 and for all lift.				
5	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	17.00	cum	₹2,123.75	₹ 36,104.00
6	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.	2000.00	sqm	₹34.15	₹ 68,300.00
7	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc., disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.				
7.1	All kinds of soil	820.00	each	₹82.45	₹ 67,609.00
8	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
8.1	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	30.00	cum	₹7,878.50	₹ 2,36,355.00
8.2	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	75.00	cum	₹7,294.70	₹ 5,47,103.00
8.3	1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources)	62.00	cum	₹6,518.60	₹ 4,04,153.00
9	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1	37.00	sqm	₹410.85	₹ 15,201.00

	cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 12.5 mm nominal size derived from natural sources)				
10	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
10.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	1.82	cum	₹10,852.95	₹ 19,752.00
11	Centering and shuttering including strutting, propping etc. and removal of form for				
11.1	Suspended floors, roofs, landings, balconies and access platform	19.00	sqm	₹927.25	₹ 17,618.00
12	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
12.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1500.00	kg	₹107.85	₹ 1,61,775.00
13	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
13.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	51.00	cum	₹7,370.65	₹ 3,75,903.00
14	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 :				
14.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	25.00	cum	₹9,105.95	₹ 2,27,649.00
15	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.				
15.1	Hot finished welded type tubes	4000.00	kg	₹194.40	₹ 7,77,600.00
16	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.				
16.1	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	1000.00	kg	₹172.60	₹ 1,72,600.00
17	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 colors 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.				
17.1	Size of Tile 600x600 mm	110.00	sqm	₹1,553.45	₹ 1,70,880.00
18	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colors and shade, laid on 20 mm 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. The tiles must be cut with the zero chipping diamond cutters only. Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber				

	mallet for placing the tiles gently and easily.				
18.1	Glazed Vitrified tiles Matt/Antiskid finish of size				
18.1.1	Size of Tile 600 x 600 mm	29.00	sqm	₹1,464.85	₹ 42,481.00
19	12 mm cement plaster of mix :				
19.1	1:6 (1 cement: 6 coarse sand)	72.00	sqm	₹343.65	₹ 24,743.00
20	15 mm cement plaster on rough side of single or half brick wall of mix:				
20.1	1:6 (1 cement: 6 coarse sand)	15.00	sqm	₹395.35	₹ 5,930.00
21	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
21.1	Two or more coats on new work	300.00	sqm	₹155.90	₹ 46,770.00
22	Supplying at site :				
22.1	R.C.C. Standards post/struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarsesand : 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in- charge (cost of earth works in excavation, concrete works in foundation to be paid separately).	26.25	cum	₹32,891.20	₹ 8,63,394.00
23	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.				
23.1	With G.I. barbed wire	25410.00	metre	₹14.00	₹ 3,55,740.00
24	Providing and laying 60mm	363.00	sqm	₹972.00	₹ 3,52,836.00

	thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.				
25	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured to calculate volume for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	5.50	cum	₹10,117.60	₹ 55,647.00
26	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 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:				
26.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	1.00	each	₹6,767.40	₹ 6,767.00
27	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 :				
27.1	W.C. pan with ISI marked white solid plastic seat and lid	2.00	each	₹6,515.55	₹ 13,031.00
28	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :				
28.1	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern	1.00	each	₹18,008.75	₹ 18,009.00
29	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 wherever require:				
29.1	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	3.00	each	₹2,301.75	₹ 6,905.00
30	Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.	3.00	each	₹142.85	₹ 429.00
31	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers	3.00	each	₹1,607.95	₹ 4,824.00

	complete.				
32	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
32.1	20 mm nominal dia Pipes	45.00	metre	₹335.00	₹ 15,075.00
32.2	25 mm nominal dia Pipes	45.00	metre	₹401.55	₹ 18,070.00
33	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.				
33.1	50 mm nominal dia Pipes	35.00	metre	₹794.25	₹ 27,799.00
34	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 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.	3000.00	per litre	₹11.00	₹ 33,000.00
35	Providing and fixing PTMT bib cock of approved quality and colour.				
35.1	15mm nominal bore, 86 mm long, weighing not less than 88 gms	10.00	each	₹125.60	₹ 1,256.00
36	Providing and fixing PTMT stop cock of approved quality and colour.				
36.1	15 mm nominal bore, 86 mm long, weighing not less than 88 gms	5.00	each	₹118.50	₹ 593.00
37	Providing and fixing PTMT grating of approved quality and				

	colour.				
37.1	Circular type				
37.1.1	100 mm nominal dia	13.00	each	₹37.60	₹ 489.00
38	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.				
38.1	15 mm nominal bore, 105 mm long, weighing not less than 138 gms	3.00	each	₹182.10	₹ 546.00
39	Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms	10.00	each	₹156.90	₹ 1,569.00
40	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	3.00	each	₹111.45	₹ 334.00
41	Providing and laying non-pressure NP2 class (light duty) R.C.C. 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 :				
41.1	150 mm dia. R.C.C. pipe	42.00	metre	₹556.45	₹ 23,371.00
42	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement				

	complete as per standard design :				
42.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
42.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	3.00	each	₹12,770.55	₹ 38,312.00
43	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality				
43.1	M D - 10				
43.1.1	Square shape 450 mm internal dimension	3.00	each	₹1,386.55	₹ 4,160.00
44	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	1.00	each	₹2,890.10	₹ 2,890.00
45	Boring/drilling bore well of required dia for casing/strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.				
45.1	All types of soil				
45.1.1	300 mm dia	50.00	metre	₹707.75	₹ 35,388.00
46	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.				

46.1	150 mm nominal size dia	25.00	metre	₹793.25	₹ 19,831.00
47	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in charge.				
47.1	150 mm nominal size dia	25.00	metre	₹807.45	₹ 20,186.00
48	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	3.00	cum	₹2,024.50	₹ 6,074.00
49	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	100.00	hour	₹1,085.05	₹ 1,08,505.00
50	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:				
50.1	150 mm dia	1.00	Each	₹246.45	₹ 246.00

51	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.				
51.1	150 mm clamp	1.00	Each	₹2,019.05	₹ 2,019.00
52	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).				
52.1	150 mm dia	1.00	Each	₹322.00	₹ 322.00
Total of DSR items				A	₹ 55,58,088.00
53	PUF Wall Panel (Porta Cabin): - The Panel shall be made up of 50mm thick composite PUF sandwich between with 0.4mm thick Pre-Painted Galvanized Iron Sheet. The panels shall be made of micro ribbing Pre-Painted Galvanized Iron Sheet on both sides with layer of PU foam of density of 40±2 kg/m ³ as insulation. The panels will have tongue groove arrangement. Colour Shall be preferably RAL 9002 – Off white.	275.00	sqm	₹2,142.00	₹ 5,89,050.00
54	PUF Roof Panels (Porta Cabin): - The insulated Roofing shall be 50+30mm thick PUF insulated Sandwich panels with density of 40±2Kg/m ³ . The top covering on roof panels will 0.4mm thick trapezoidal Pre-coated galvanized iron sheet with crest height 30±1mm, crest width 24±1mm and pitch 200±1mm & bottom covering on roof panels shall be 0.4mm thick micro ribbing Pre-coated galvanized iron sheet. Colour Shall be preferably RAL 9002 – Off white	185.00	sqm	₹2,219.00	₹ 4,10,515.00
55	Window (Porta Cabin) : - 02 No of aluminium framed clear glass sliding, window size (4'x3') ft will be provided.	9.00	Each	₹8,536.00	₹ 76,824.00
56	Single Doors (Porta Cabin) : - 01 No's of PPGI framed PUF panel Single door, size (3'x7') ft will be provided with fittings	6.00	Each	₹17,072.00	₹ 1,02,432.00

57	Single Doors (Porta Cabin) : - 01 No's of PPGI framed PUF panel Single door, size (2.5x6.5) ft will be provided with fittings.	6.00	Each	₹14,226.00	₹ 85,356.00
58	Flashing : -The container shall be provided with U Channel, Internal and external flashing for wall and roofs.	556.00	mtr	₹199.00	₹ 1,10,644.00
59	Installation : -Complete installation and its installation material like silicon, pop rivet, hardner, nut bolts, fastners, stiffner etc will be in our scope of work.	650.00	Set	₹49.00	₹ 31,850.00
60	Conducting geotechnical investigation by suitable method and carrying out testing of soil samples in the presence of degree holder civil engineer for determination of net safe bearing capacity of the soil at various suitable depths as per latest IS: 1892 and as per direction of Engineer-in-charge with following activities; (i) Exploratory boring of holes of 100mm to 150mm dia in all type of soils and rocks for required number of bores and depth of each bore as recommended by IS 1892 or as per the directions of Engineer-inCharge by use of suitable methods and machineries, tools and plants including labourers and materials required for boring and collection of disturbed and undisturbed soil samples at every 1.5 m depth intervals or at change of strata up to significant depth of settlement and preparation of bore report in accordance to IS 1892 including recording of bore location and its level with reference to the control points	480.00	mtr	₹2,266.00	₹ 10,87,680.00

	and plotting the bore locations on site layout plan. (ii) Conducting suitable in-situ field tests like Standard Penetration Test/Static Cone Penetration Test/Dynamic Cone Penetrations Test/Field Vane Shear Test etc. as per relevant Indian Standard Codes including preparation of test reports. (iii) Collection, protection and labelling and transportation of disturbed and undisturbed soil samples to laboratory in accordance to IS 1892. (iv) Conducting physical and chemical tests at laboratory, on samples collected at field which are truly representative of the soil at site. The various tests to be conducted comprises of grain size analysis, specific gravity, liquid and plastic limits, shear strength test, cohesion, angle of shearing resistance, density index, Atterberg limits, moisture content, dry density, bulk density, void ratio, and consolidation / unconfined compression test or any other relevant test as mentioned in Table 3 of IS 1892. (v) Preparation of Soil investigation report in standard format clearly indicating field test data, soil profile, depth of water table, filled up soil, rock strata, laboratory test results etc. (vi) The report shall include recommendation of various suitable types of foundations in accordance with IS 1904 and corresponding net safe bearing capacity at different depths with precautionary measures to be				
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	implemented during construction. The field investigation, sample collection procedure and laboratory tests and selection of suitable type of foundation shall be conducted under supervision of qualified and experienced geo-technical engineer and as per the directions of Engineer-in-Charge. All kind of Soil. Bore depth up to 20m or more from ground level in all kinds of soil as per the directions of Engineer-in-Charge.				
61	Carrying out digitalized topographical land survey with Electronic Total Station equipment of precision less than or equal to 4 seconds for providing reference point for RCC post in X, Y, Z co-ordinates with reference to permanent control points and permanent bench marks duly fixed. Also for measuring land area as per site requirement complete all as per Direction of engineer-in-Charge.	10.00	per Job	₹15,000.00	₹ 1,50,000.00
	Total of NS items			B	₹ 26,44,351.00
	Add GST multiplying factor (0.973) on DSR items (S No 01 to 52) mark as A			₹ 55,58,088.00	₹ 54,08,019.62
	Add Cost Index as on 01.04.2026 was 98.06 on DSR 2023 items (S No 01 to 52)			₹ 55,58,088.00	₹ 54,50,261.09
			Say	C	₹ 54,50,261.00
	Total DSR + NS items				₹ 80,94,612.00

E2 : SCHEDULE OF QUANTITY (E&M WORKS)

Sr. No.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR 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/HFFR PVC insulated copper conductor single core cable etc. as required.				
1.1	Group C	45	Each	₹1,704.00	₹76,680.00
2	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
2.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	60	Meter	₹311.00	₹18,660.00
2.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	120	Meter	₹373.00	₹44,760.00
2.3	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	60	Meter	₹482.00	₹28,920.00
2.4	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	60	Meter	₹1,454.00	₹87,240.00
3	Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal(Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 0C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC supply, Ceiling Fan compliant to IS 374:2019				

	fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc.as required.				
3.1	1400mm, service value ≥ 6.0 CM/Min/Watt, air delivery 245 CM/Min (Minimum)	10	Each	₹2,737.00	₹27,370.00
4	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.	6	Each	₹807.00	₹4,842.00
5	Supplying and fixing modular switch/socket on existing modular plate & switch box including connections but excluding modular plate etc. as required: 5/6 A switch.				
5.1	5/6 A switch	15	Each	₹121.00	₹1,815.00
5.2	15/16 A switch.	30	Each	₹176.00	₹5,280.00
5.3	3 pin 5/6 A socket outlet.	15	Each	₹136.00	₹2,040.00
5.4	6 pin 15/16 A socket outlet.	30	Each	₹219.00	₹6,570.00
6	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required				
6.1	3 Module (100mm x 75mm).	15	Each	₹384.00	₹5,760.00
6.2	4 Module (125mmX75mm)	30	Each	₹401.00	₹12,030.00
7	SITC of LED Batten light (System lumen efficacy ≥ 105 85%, Operating voltage AC 140 270 Volt, frequency 50/60 hz, Operating temp range -5 °C to 40 °C, internal surge protection of 2.5 KV with Short & Open circuit protection, THD < 10%, P. F. ≥ 0.95 , IP20, CRI >80, Flicker free, (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K/4000°K/5700°K/6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC				

	insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy $\geq 105 < 120$ lm/Watt output. LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast/Extruded aluminium Body (Thickness > 1.20 mm)				
7.1	18-22 Watt	20	Each	₹681.00	₹13,620.00
8	Supplying & fixing PVC insulated PVC sheathed copper conductor submersible flat cable, ISI marked, in existing metal/HDPE/PVC pipe/in bore well/in sump, including fixing cable to GI/HDPE pipe with suitable cable tags of 3 core 6 sq.mm flat cable, complete as required.	150	Meter	₹266.00	₹39,900.00
9	SITC of floor/wall mounted, compartmentalized and segregated sheet steel distribution panel, suitable for 415 V, 3-phase, 4-wire, 50 Hz AC supply, having minimum degree of protection IP-65, fabricated from CRCA M.S. sheet, powder coated, with minimum 2.0 mm thick load-bearing members and minimum 1.6 mm thick doors, of adequately rigid bolted construction using suitable structural sections, complete with separate and segregated incomer/busbar section and outgoing feeder compartments, locking covers/doors, copper busbars of suitable current carrying capacity, neutral and earth busbars, internal wiring, terminals, cable gland plates, supports, danger plate, circuit identification labels and all necessary hardware and accessories, comprising 250 A, 4-Pole MCCB – 1 No. as main incomer; 63 A, 4-Pole MCCB – 3 Nos., 32 A, DP MCB – 3 Nos. and 32 A, 4-Pole MCB – 4 Nos. as outgoing feeders, including all interconnections, shrouding, cable	1	Each	₹2,71,627.00	₹2,71,627.00

	termination arrangements, testing and commissioning, complete in all respects as required including foundation and conforming to relevant IS/IEC standards and CPWD specifications.				
10	SITC of 40 Ltr stainless steel plain and cold water cooler with versatile dispensing of two faucets, operating voltage 230V, 50 Hz, single phase, using R134s refrigerant, complete installation as required.	2	Each	₹36,213.00	₹72,426.00
11	SITC of 75 Litre capacity Desert Air Cooler, suitable for operation on 230 V, 50 Hz, single-phase AC supply, with 190–200 W power consumption, high-density honeycomb cooling pads, long life water pump, four-way air deflection and motorized auto-swing louvres, complete with water level indication, required controls and all standard accessories, including transportation, installation, testing and commissioning, complete in all respects as required.	6	Each	₹13,895.00	₹83,370.00
12	SITC of 5 HP, 8 stage submersible pump set with non aging water proof insulation to run on 3 phase 415 volts, 50 Hz, supply capable of delivering discharge not less than 80 L/min-220 L/min(LPM) in head range of 112 mtr- 52 mtr, complete job as required.	2	Each	₹57,575.00	₹1,15,150.00
13	Supplying and lowering of 2" dia 'B' class GI pipe of 3 meter length with MS flanges, welded on both ends(flanges containing 4 nos. of holes for 12mm dia nut bolt with three grooves for steel rope) & submersible cable with rubber packing nut-bolt etc complete as required.	30	Each	₹1,755.00	₹52,650.00
14	SITC of three phase, 415V, 50Hz, overload relay range 6-9.3A, with suitable contactor rating DOL starter suitable for 5 HP/3.7 KW submersible motor, complete installation as required.	2	Each	₹3,708.00	₹7,416.00
15	Providing, supplying, installing, testing and commissioning of single phase A.C. 230 Volts 50 Hz, 300 mm sweep, minimum 1350 RPM, heavy duty exhaust fan, including louver shutter/bird screen including	1	Each	₹4,309.00	₹4,309.00

	connection testing and commissioning as required.				
16	Supplying and installation of 250 mm plastic body fresh air fan, Min.RPM 1200, Max. power consumption 45 watt. i/c making aluminium frame for installation of fresh air fan, i/c connection, testing & commissioning etc. as required.	10	Each	₹2,264.00	₹22,640.00
17	SITC of 400 mm sweep wall mounted fan of reputed make, suitable for operation on 230 V $\pm 10\%$, 50 Hz, single-phase AC supply, having minimum speed of 1200 RPM and minimum air delivery of 70 CMM, complete with suitable motor, blades, protective guard, oscillation and adjustable tilting arrangement, wall mounting bracket and all necessary accessories, electrical connections, mounting hardware, testing and commissioning, complete as required.	6	Each	₹3,143.00	₹18,858.00
18	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)				
18.1	12 way , Double door	1	Each	₹2,871.00	₹2,871.00
19	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).				
19.1	6 way (4 + 18), Double door	2	Each	₹5,299.00	₹10,598.00
20	Supplying and fixing following rating, double pole, 240 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
20.1	63 A	1	Each	₹569.00	₹569.00
21	Supplying and fixing 5 A to 32 A 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.				
21.1	Single pole	48	Each	₹285.00	₹13,680.00
22	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
22.1	63 A	2	Each	₹1,115.00	₹2,230.00
23	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Meter long etc. with charcoal/ coke and salt as required.	2	Set	₹8,351.00	₹16,702.00
24	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	10	Meter	₹160.00	₹1,600.00
25	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	10	Meter	₹755.00	₹7,550.00
26	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	10	Meter	₹287.00	₹2,870.00
27	Supply of Power Cables, stranded aluminium conductor, XLPE Insulated, cores laid up, PVC tape innersheathed, Armoured galvanised steel strip, extruded PVC Type ST2 sheathed, 650/1100V grade as per IS 7098(Part 1) 1988				
27.1	3.5 core 150 sqmm	60	Meter	₹2,276.00	₹1,36,560.00
28	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.				
28.1	3½ X 150 sq. mm (50mm)	6	Each	₹798.00	₹4,788.00
29	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including				

	excavation, sand cushioning, protective covering and refilling the trench etc as required.				
29.1	Above 95 sq. mm and upto 185 sq. mm	60	Meter	₹497.00	₹29,820.00
30	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. in the existing trench, complete as required.				
30.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	30	Meter	₹136.00	₹4,080.00
31	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/recessed conduit/submain wiring/cable as required.	120	Meter	₹50.00	₹6,000.00
32	SITC of LED Bulkhead Light, 10 Watt, suitable for operation on 230 V $\pm 10\%$, 50 Hz, single phase AC supply, with LED source of colour temperature 6500 K (cool daylight), complete with suitable housing/body, diffuser, LED driver, mounting accessories and all necessary connections, suitable for surface mounting on wall/ceiling, complete in all respects etc.	5	Each	₹1,475.00	₹7,375.00
33	Supplying and Erection of 6 mtrs. Long GI Octagonal Pole with top dia 70mm, bottom dia 130mm, company fabricated with 3mm thick GI sheet and base plate of size 200mm x200mm x12mm G.I. sheet i/c 4 nos. foundation bolts of size 20mm dia of suitable length, RCC foundation of size 500x500x1500 mm as per standard drawing of manufacturer, 2 Nos. 750mm long 50mm dia B class GI protection pipe in each foundation to accomodate connection cable, bakelite sheet with 1 no. 6 amp 10 KA DP MCB inbuilt within pole, Galvanised iron bracket 1 mtr. long provided at top etc as required.	10	Each	₹19,217.00	₹1,92,170.00
34	SITC of LED Street light fixture, powder coated pressure die cast aluminium body (System lumen efficacy ≥ 105 85%, Input voltage: 140-270 Volt AC, frequency 50/60 hz, Operating temp range -5 0C to 50 0C, internal surge protection of 5 KV				

	L,N,E as per IEC 61000-4-5, Driver efficiency >85%,THD < 10% as per IEC 61000-3-2, P. F.≥0.95, IP-66,IK-10, CRI >70, under voltage and over voltage protection, EMIEMC As per CISPR -15, lenses for beam angle as per IESNA type I/II/III as per the width of the road and the project requirement., suitable to fit in up to 65mm dia pipe, life time (LED, Driver & electrical circuitry) of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin),SDCM (Standard Deviation Colour Matching) <5, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard complete in all respect i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 <120 lm/Watt output .LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C)				
34.1	45 WATT	10	Each	₹1,366.00	₹13,660.00
	TOTAL				₹14,77,056.00
	SAY				₹14,77,056.00

E3 : PRICE BID

CENTRAL PUBLIC WORKS DEPARTMENT				
NIT No. 01/EE&SM/FPD/2026-27				
Name of Work: - Construction/Installation of Porta Cabin, Geotechnical investigation, fencing of the plot, Internal Water Supply including tubewell, Sanitary Installations, Internal & External Electrical Works on the acquired 50 acres of land at Village Indri, Distt:- Nuh, Haryana for establishment of 13th Reserve Mahila Battalion of CISF.				
Name of Contractor:				
S. No.	Component of Work	Estimated Cost (Rs.)	Quoted Percentage (at par/above/below) the Total Estimated Cost	Total Tendered Amount (Rs.)
1.	Civil Works - As per Item No. E1 of Schedule of Qty.	₹ 80,94,612.00/-		
2.	E&M Works - As per Item No. E2 of Schedule of Qty.	₹14,77,056.00/-		
TOTAL ESTIMATED COST		₹ 95,71,668.00/-		

PART – F

Site Location Map

SITE LOCATION

[HTTPS://MAPS.APP.GOO.GL/PKDUM294N1TACC9Q8](https://maps.app.goo.gl/PKDUM294N1TACC9Q8)

