

विषय सूची
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कार्य का नाम:— **Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27
(SH:- Replacement of damaged CI pipe and choked sewer line pipe)**

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प्रमाणित किया जाता है कि इस निविदा में शुद्धि परिचियों सहित 1 से 62 पृष्ठ हैं । (इस पृष्ठ सहित)

“Certified that this N.I.T. contains 01 to 62 pages (including this page)

This N.I.T. is approved for Rs. 27,33,660/- Only.

Vide NIT No : 49/EE/S-Div/2026-27

वरिष्ठ नक्शानवीस
Senior Draughtsman

सहायक अभियंता (यो.)
Assistant Engineer (P)

कार्यपालक अभियंता
Executive Engineer
एस मण्डल, के.लो.नि.वि., नई दिल्ली
S-Division, CPWD, New Delhi

IMPORTANT CONDITIONS AND CHECK LIST FOR BIDDERS FOR SUBMISSION OF BIDS

1. The bidder should read all the instructions, items & conditions, contract clauses, nomenclature of items, specifications etc., contained in the bids document very carefully, before quoting the rates.
2. The bidder should also read the General Conditions of Contract - 2023 (Maintenance work) for CPWD works, published by DG (W), CPWD, Nirman Bhawan, New Delhi. Which will be a part of the Agreement with up to date amendments upto the date of submission of tenders.
3. The bidder shall quote his rates keeping in mind the specifications, terms & conditions, additional and special conditions etc. and nothing extra shall be payable unless otherwise specified.
4. The bidder shall have to make his own arrangement for housing facilities for staff and labour away from construction site and shall have to transport the labour to and fro between construction site and labour camp at his own cost. No labour huts will be allowed to be constructed at the project site except a few temporary sheds for chowkidars and storekeepers at project site. Any decision in this regard shall rest with the Engineer-in-charge and the contractor shall have no claim on this account.
5. The work required to be executed in occupied buildings. The bidder shall take suitable precaution to ensure quality of workmanship as well as the progress of the work. He shall regulate the labour accordingly.
6. The bidder shall make environment friendly arrangement for disposal of dismantle/waste materials from upper floors.
7. All malba generated during work execution shall not be allowed to be stacked near work site/quarters and shall be removed the same day to the designated common disposal point in the colony. The collected malba shall be disposed of to authorized municipal dumping ground within 07 days. In case of non-removal of malba within above timelines, a penalty of Rs. 1000/- per day shall be levied on the contractor.
8. Before the start of the work 100% of the total requirements or as decided by Engineer-in-Charge for material will have to be deposited with the concerned AE/JE in first instance. If the material as instructed is not brought to the site within 7 days from the date of start of work, Earnest money/ Performance Guarantee shall be forfeited.
- ~~9. The Manpower supplied like Sewerman, Plumber, Carpenter, Beldar, Welder, Mason and others supplied by the contractor shall mark his/ her attendance in biometric attendance machine and same shall be duly verified by the JE/ AE concerned. The Biometric machine shall be installed by the department for which total recovery of Rs 2,000/- shall be made from contractor bills.~~
10. If required as per written direction of Engineer-in-Charge, the contractor shall ensure Police verification of every staff deployed by him/her.
11. Any quarter which will be handed over to the contractor for making the quarter habitable under change of tenancy/upgradation, will have to be completed in all respect with in a maximum period of 45 days (excluding hindrances from department site). In case of failure to complete the work with in time as mentioned above, Rs. 5,000/- (Rupees Five Thousand only) per quarter per day shall be recovered from the bill of contractor subject to maximum of Rs. 50,000/- per quarter, in addition to the levy of compensation under clause-2.
12. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.
13. Contractor may have to show mock up of important items like flooring, false ceiling, door window, fittings & fixtures, modular kitchen etc. as directed by Engineer-in-Charge.
14. Specialized items of work shall be executed by the bidder either directly through the Manufacturer of the items or through their authorized applicators/installers only.
15. In no case, Mortar/ cement concrete shall be mixed directly on floor/ road surface. For mixing of mortar, G.I. Sheet/ Ply etc. shall be used to maintain the surface of flooring/ road. If at any instance, any worker is found, mixing mortar/ cement concrete directly on floor/ road surface, recovery of Rs. 2000/- per instance shall be made from running bill.
16. Curing of plaster/RCC/ Brick work etc. up to all heights should be ensured with the help of water jet pressure machine such as Universal Aquatak 130 of Bosch or similar. Nothing extra shall be payable for this.

INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR 'e-TENDERING' FORMING PART OF

TENDER DOCUMENTS AND TO BE POSTED ON WEBSITE

(Applicable for inviting open tenders)

The Executive Engineer, "S" Division, CPWD, East Block-II, Level-2, R.K. Puram, New Delhi-110066, Email: deleecs.cpwd@nic.in invites on behalf of President of India online **Percentage Rate bids from the CPWD Enlisted contractor in Building and Roads category of appropriate class, in single bid system, for the following works: -**

Sl. No.	NIT No.	Name of Work & Location	Estimated Cost	Earnest Money	Period of Completion	Last date and time of submission of bid, and other documents as specified in the press notice	Time & date of opening of tender
1	49/EE/S-Div/2026-27	Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27 (SH:- Replacement of damaged CI pipe and choked sewer line pipe)	Rs. 27,33,660/-	Rs. 54,673/-	(03) Three Months	Up to 03:00 PM On 19.10.2026	At 03:30 PM on 19.10.2026

- 1 The intending bidder must read the terms and conditions of cpwd-6 carefully. He should only submit this tender if he considers himself eligible and he is in possession of all the documents required.
- 2 Information and instructions for contractors posted on website shall form part of tender document.
- 3 The tender document consisting of schedule of quantities for above work including conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <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, "S" Division, CPWD, R.K. Puram, New Delhi, 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 contractors 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 class-III 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 instructions available on download section of <https://etender.cpwd.gov.in/>.
- 7 On opening date, the contractor can login and see the tender opening process. After opening of tenders he will receive the competitor tender sheets.
- 8 Contractor can upload documents in the form of JPG format and PDF format.

- 9 Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in pink 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 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.

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

1. Insurance Surety Bond, Demand Draft/ Account Payee Banker's Cheque / FDR/ Bank Guarantee of any commercial Bank against EMD.
2. Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD.
3. Enlistment order of contractor.
4. GST Registration Certificate if already obtained by the bidder.
If the bidder has not obtained GST registration as applicable, then he shall scan and upload following under taking along with 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 account of the work executed and/or for any action taken by CPWD or GST department in this regard".
5. Permanent Account Number (PAN) as issued by the Income Tax Department.
6. Contractor's contact Mobile Number, E-mail ID & Present address on a separate sheet.
7. Copy of Certificate of ERP Training through any of the CPWD Regional Training Institutes (RTIs) or through the National CPWD Academy (NCA), Ghaziabad or through any other special training arranged by ERP unit at CPWD Headquarter. If the authorized representative has taken training, then also upload the copy of authorization letter clearly indicating in what capacity he/she has taken training.

NOTE :- No cutting/over writing shall be allowed in Treasury Challan/Demand, Draft/Pay order of Banker's Cheque/ Deposit at Receipt / Bank Guarantee of any schedule Bank. If found so, their bid will be rejected. If any agencies fail to scan and upload the above mentioned documents then his/her/their tender shall be treated as rejected.

CPWD

**Executive Engineer,
"S" Division, CPWD,
R.K. Puram, New Delhi.**

CPWD-6 FOR 'E'-TENDERING

Percentage rate online bids are invited on behalf of President of India from the CPWD Enlisted contractor in Building and Roads category of appropriate class, in single bid system, for the following works:-

Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27 (SH:- Replacement of damaged CI pipe and choked sewer line pipe)

The enlistment of the contractors should be valid on the last date of submission of tenders.

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

The work is estimated to cost **Rs. 27,33,660 / -**. This estimate, however, is given merely as a rough guide.

1. Agreement shall be drawn with the successful contractors on prescribed Form No. CPWD 7 which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Contractor shall quote his Percentage rates as per various terms and conditions of the said form which will form part of the agreement.

The time allowed for carrying out the work will be **(03) Three 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 tender documents.

- 2 The site for the work is available.
- 3 The tender document consisting of the schedule of quantities of various types of jobs to be executed at various locations and conditions of the contract to be complied with and other necessary documents except Standard General Conditions Of Contract Form 2023 can be seen on website <https://etender.cpwd.gov.in/> or www.cpwd.gov.in free of cost.
- 4 After submission of the tender the contractor can re-submit revised tender any number of times but before last time and date of submission of tender as notified. No post-tender modification is allowed by the tenderers except through negotiations, if required. In case, any tenderer does so, the tender will be rejected and the tenderer will be debarred for future tendering in CPWD for two years by the concerned enlisting authority (in case of CPWD enlisted contractor) and by the concerned CE/SE (in case of non-enlisted contractor).
- 5 While submitting the revised tender, contractor can revise the rates of one or more item (s) any number of times but before last time and date of submission of tender as notified.
- 6 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 balance amount as prescribed) from any of the Commercial Banks drawn **in favour of Executive Engineer, "S" Division, CPWD, New Delhi**, shall be scanned and uploaded to the e-Tendering website within the period of tender 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 document shall only be issued from the place in which the office of receiving division office is situated). 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. This receipt shall also be uploaded to the e-tendering website by the intending bidder upto the specified bid submission date and time.

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 lac, 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 for single bid works and 180 days for two bid system or more from the 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 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. should be returned within 30 days of declaration of result of technical bid evaluation.

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

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

The last time and date of submission of tender on e-Tendering website is Up to 03:00 PM on 19.10.2026. The tender submitted shall be opened at 03:30 PM on 19.10.2026.

9. The tender submitted shall be come invalid and e-tender processing fee shall not be refunded if:
- The contractor is found ineligible.
 - The bidder does not upload all the documents as stipulated in the tender document.
 - If a tenderer quotes nil rates against each item in Percentage rate tender 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.
 - 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.
10. 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 the 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 subcontractors, if any engaged by the contractor for the said work within the period specified in Schedule F.
11. 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.
12. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the contractors shall be summarily rejected.
13. Canvassing whether directly or indirectly in connection with contractor is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

14. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the tender and the contractors shall be bound to perform the same at the rate quoted.
15. The contractor shall not be permitted to tender 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 a 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.
16. 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 prior 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 tender or engagement in the contractor's service.
17. The Bid for the works shall remain open for acceptance for a period of **30 Days** from the date of opening of Bids.
- (i) If any tenderer withdraws his tender within 7 days after last date and time (24 hour basis) 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 after expiry of 7 days after last date and time (24 hour basis) 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) Withdrawal of the tender, by the tenderer, shall only be made through e-tender portal. Any other method i.e. through letter / e-mail etc. shall not be considered.
- (iv) 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.
18. This notice inviting tender shall form a part of the contract document. The successful contractor/ contractors, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
- (a) The Notice Inviting tender, all the documents including additional conditions, Specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender and the rates quoted on line at the time of submission of tender and acceptance thereof together with any correspondence leading thereto.
- (b) Standard C.P.W.D. Form 7/8 or other Standard C.P.W.D. Form as applicable.
18. 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/uploading tender can be resolved through the concerned Executive Engineer/ Assistant Engineer (e- mail Id: deleecs.cpwd@nic.in) or ERP helpline no. 18001804286 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.

**Executive Engineer,
"S" Division, CPWD,
R.K. Puram, New Delhi**

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT**

**BRANCH : B&R
STATE : DELHI**

**ZONE : NDZ-III
DIVISION : 'S' Division**

Percentage Rate Tender & Contract for Works

Tender for the work of “ **Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27 (SH:- Replacement of damaged CI pipe and choked sewer line pipe)** ”

- (i) To be **uploaded online** by on CPWD web site by **Executive Engineer, S-Division CPWD, East Block-2, R.K. Puram, New Delhi.**
- (ii) To be **uploaded/submitted** by **tenderers** Up to 03:00 PM on 19.10.2026 on CPWD web site.
- (iii) To be **opened** in presence of Tenderers who may be present At 03:30 PM on 19.10.2026 *in the office* Executive Engineer, S-Division CPWD, East Block-2, R.K. Puram, New Delhi

Issued to: - online tender

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 respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause-11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

I/We agree to keep the Tender open for **Thirty (30) days from the date of opening of the bid** and not to make any modifications in its terms and conditions.

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 receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or 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 his 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 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of earnest money or both 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 contractor on back to back basis. Further that, if such a violation comes to notice of department, then I shall be debarred for Tendering in CPWD in future forever. Also, if such a violation comes to the notice of the department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire earnest money deposit/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 & integrity of the State.

Dated,

Signature of Contractor

Witness
1.

Postal Address

Address:

Occupation:

**** To be filled by Contractor**

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.....*..... (Rupees.....*) only.

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

*
*
*

For & on behalf of the President of India.

CPWD

Signature *

Designation: *

Dated:

PERFORMA OF SCHEDULES**CPWD****SCHEDULES****SCHEDULE 'A'**

Schedule of Quantities

Attached (Page No. 60-62)

SCHEDULE 'B'**Schedule of materials to be issued to the contractor**

Sl. No	Description of item	Quantity	Rates in figures & words of Which the material will be Charged to the contractor	Place of issue
1.	2	3	4	5
.....NIL.....				

SCHEDULE 'C'**Tools and plants to be issued to the contractor**

Sl. No	Description	Hire charges per day	Place of issue
1.	2.	3.	4.
.....NIL.....			

SCHEDULE 'D'

Additional Conditions, /Technical Conditions and Requirements/documents for the work, if any, specifications for the work, if any: etc. : As per part B of tender document

SCHEDULE 'E'

Reference to General Conditions of Contract : General Condition of Contract 2023 for CPWD (Maintenance Works) as amended/modified with corrections slip issued upto last date of submission of tender.

Name of Work: " Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27 (SH:- Replacement of damaged CI pipe and choked sewer line pipe)"

- 1) Estimated cost : **Rs. 27,33,660/-**
- 2) Earnest money : **Rs. 54,673/-** shall be returned on receipt of performance guarantee.
- 3) 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.
- 4) Security Deposit : **2.5% of accepted Tendered value of work**

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting Tender : **Executive Engineer, "S" Division, CPWD, RK Puram, New Delhi**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3 : **As per clause 12 given below**

Definition:

2(vi) Engineer-in-Charge : **Executive Engineer, 'S' Division, CPWD, New Delhi**

2(viii) Accepting Authority : **Executive Engineer, 'S' Division, CPWD, New Delhi**

2(x) Percentage on cost of material and labour to cover all overheads and profits : **15% (7.5% C.P. + 7.5% O.H.)**

2(x)a Standard Schedule of Rates : **DSR 2023 with correction slips upto last date of receipt of Tender and market rates.**

2 (xi) Department : **Central Public Works Department**

Standard CPWD contract Form : **GCC 2023 CPWD Form 7 for Maintenance Works as Modified and corrected upto last date of receipt of Tender.**

Clause 1

i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance. : **5 days (working Days)**

ii) Maximum allowable extension with late fee@ 0.1% per day of performance Guarantee amount beyond the period provided in (i) above : **NIL**

Clause 2

Authority for fixing Compensation under clause-2 : **Chief Engineer, New Delhi Zone-III, CPWD, R.K. Puram, New Delhi**

Clause 2A

Whether Clause 2A shall be applicable : **As per Modified Provision of GCC 2023 for maintenance work.**

Clause 5

Date of Commencement of work to be reckoned i.e. number of days from the date of issue of letter of acceptance : **5 days or as decided by Engineer-in-Charge**

Table of Mile Stone(s)

S.No.	Description of Milestone (Financial)	Time Allowed (from Date of Start)	Amount to be withheld in case of non-achievement of milestone
1.	1/3 rd (of whole work)	1/3 rd (of whole work)	In event of non-achieving the desired progress 1% of the Tendered value of the work shall be withheld for the failure of each milestone.
2.	2/3 rd (of whole work)	2/3 rd (of whole work)	
3.	Complete Work	Stipulated period	

Time allowed for execution of work : (03) Three Months

Note: 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.

Authority to decide:

- (i) Authority to convey the decision of shifting of milestone and extension of time : **Executive Engineer, 'S' Division, CPWD, New Delhi**
- (ii) Authority to decide rescheduling of milestone and extension of time : **Chief Engineer, New Delhi Zone-III, CPWD, R.K. Puram, New Delhi**
- (ii) Shifting of date of start in case of delay in handing over of site : **Chief Engineer, New Delhi Zone-III, CPWD, R.K. Puram, New Delhi**

Clause-5 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	Portions without any hindrance	Site shall be made available in parts	
Part B	Portions with encumbrance		
Part C	Portions dependent on work of other agencies		

: **EMB through CPWD ERP Portal**

Clause 6 (EMB/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 : **Rs. 9.10 Lakh or as decided by the Engineer-in-Charge**

Clause 7A

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

Clause 10A

List of testing equipment/instruments to be provided by the contractor at site lab : **As per Site/Work requirement**

Clause 10B

Whether Clause 10B (ii) shall be applicable : **No**

CLAUSE 10 CA : **Not Applicable**

CLAUSE 10 CC : **Not Applicable**

~~Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in the next column~~

~~**Schedule of component of Other Materials, Labour, POL etc. for price escalation**~~

- (i) Component of civil (except materials covered under clause 10CA)/ Elect. construction material expressed as percent of total value of Work : ~~**N.A. (...Xm....%)**~~
- (ii) Component of labour expressed as percent of total value of Work : ~~**N.A. (...Y....%)**~~
- (iii) Component of POL expressed as percent of total value of Work : ~~**N.A. (...Z....%)**~~
- (Note: Xm.% should be equal to (100) (materials covered under clause 10CA i.e. Cement, steel & other material specified in clause 10CA + component of labour + component of P.O.L.)

Clause 11

Specifications to be followed for execution of work : **C.P.W.D. Specification 2019 Vol. – I & II with corrections slips issued upto last date of submission of bid.**

Clause 12

Deviation Limit beyond which clauses 12.2 (c) shall apply for building work : **No Limit**

Authority to decide deviation up to 1.5 times of tendered amount : **Chief Engineer, NDZ-III, CPWD, R.K. Puram, New Delhi**

The completion cost shall, in no case, exceed 1.5 times the contract amount. Contractor will devise a system to keep a watch on quantum of work taken up vis-a-vis balance items required to complete defined scope of work and will give the alerts to Engineer-in-charge before taking up extra item(s), deviation(s) so that completion cost does not exceed above limit. Work executed beyond above limit will neither be recorded nor be paid. Engineer-in-charge will verify and confirm the alerts before assigning deviation(s) and / or extra item(s) to the contractor. If additional work(s) is required to complete defined scope of work beyond above limit, then Engineer-in-charge may take up such work(s) separately. The contractor will not have any claim(s) whatsoever on this account.

Clause 16

Competent Authority for deciding reduced rate : **Chief Engineer, New Delhi Zone-III, CPWD, R.K. Puram, New Delhi**

Clauses 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site : **Nil**

Clause 19C, 19D, 19G, 19K

Authority to decide penalty for each default

: **Executive Engineer 'S' Division, CPWD, New Delhi.**

Schedule of rate of recovery for defaults committed in respect of clause 19 and its sub clauses thereof in terms of delay days:

SI No	Clause	Rate of recovery for default (Rs.)
1	19 C	Rs. 100/- per default
2	19 D	Rs. 100 /- per default
3	19G	As per GCC 2023 for Maintenance work
4	19 K	Rs. 100/- per tradesman per day

Clause 25 : **As per GCC 2023 (Maintenance Works)**

- (i) **Conciliator – Additional Director General (ADG), Delhi, CPWD**
- (ii) **Arbitrator Appointing Authority – Chief Engineer, NDZ-III, CPWD**
- (iii) **Place of Arbitration – New Delhi**

Clause 32: Requirement of Technical Representative(s) and recovery Rate

S No	Requirement of Technical Staff		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	1 (Civil)	2 Years Or 5 Years respectively	Project Manager cum planning/ quality / Site/ Billing Engineer	Rs. 15,000/- per month per person.

Assistant Engineers retired from Government services those are holding Diploma will be treated at par with Graduate Engineers.

Diploma holders with minimum 10 year relevant experience with a reputed construction company can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

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.25 Lakh.	2% 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

STANDARD GENERAL CONDITIONS OF CONTRACT

1. General Conditions of Contract (GCC) for Maintenance Works 2023 which is available as CPWD publication on CPWD official website at https://cpwd.gov.in/Publication/GCC_CON_Misc_29_Maintenance_Works_2023.pdf shall be deemed to be part of the Tender document.
2. The Standard 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. The said Circulars issued upto the last date of tender submission shall also be deemed to be part of tender document.



(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

- 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 irrevocable Bank Guarantee for Rs..... (Rupees only) in favour of **Executive Engineer, "S" Division, CPWD, New Delhi** valid upto..... (date)*..... as **Earnest Money Deposit** from..... (Name and address of contractor)..... (Hereinafter 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) in favour of Executive Engineer, "S" Division, CPWD, New Delhi valid upto (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:

Authorizes Signatory

1. Signature.....

Name

Name & Address

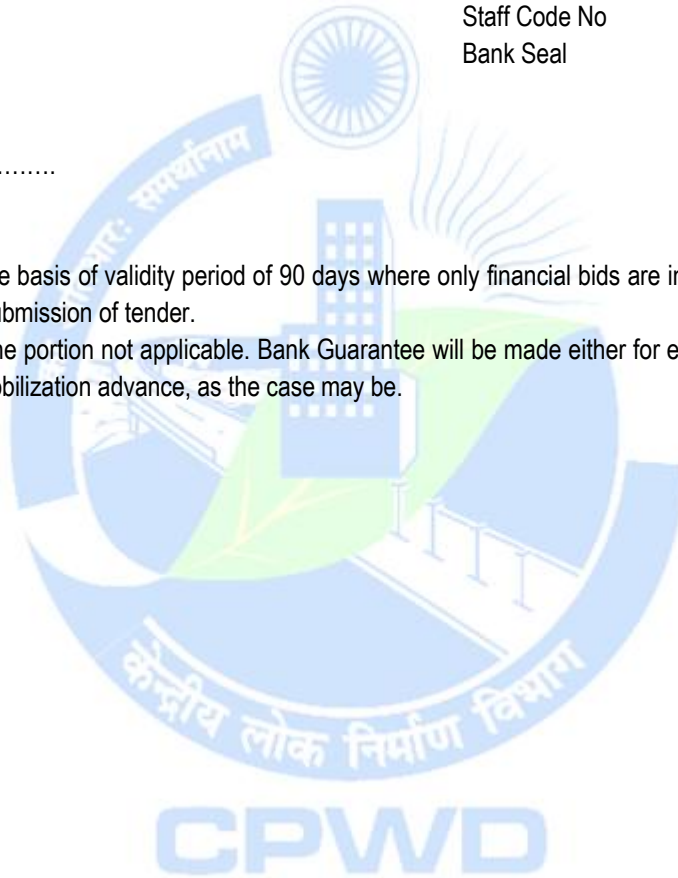
Designation
Staff Code No
Bank Seal

2. Signature.....

Name & Address

* 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 or for performance guarantee/security deposit/mobilization advance, as the case may be.



RECEIPT OF DEPOSITION OF ORIGINAL EMD

(Receipt No...../date.....*)

1. Name of work:- “ **Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27 (SH:- Replacement of damaged CI pipe and choked sewer line pipe)**”

2. NIT No. 49/EE/S-Div/2026-27 *

3. Estimated Cost: Rs. 27,33,660/- *

4. Amount of Earnest money Deposit:..... Rs. 54,673/- *

5. Last Date of Submission of bid 03:00 PM on 19.10.2026

(*To be filled by Tender inviting authority/EE at the time of issue of NIT and uploaded along with NIT)

1. Name of Contractor.....#

2. Form of EMD.....#

3. Amount of Earnest Money Deposit.....#

4. Date of submission of EMD.....#

Signature, Name and Designation of EMD receiving officer along with Office stamp

(# To be filled by EMD receiving EE/DDH)

Information and instruction for Executive Engineer for e-tendering

1. The Executive Engineer of all divisions of CPWD should receive the original EMD for tender of other division.
2. The NIT approving authority/EE at the time of issue of NIT shall also fill and upload the following prescribed format of receipt of deposition of original EMD along with NIT
3. The Authority receiving EMD in original form examines the EMD deposited by the bidder and issues receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting authority. The receipt can also be issued by any subordinate gazetted authority as authorized by the Engineer-in-Charge/DDH.
4. The authority receiving original EMD also intimates tender inviting authority about deposition of EMD by the agency by email/fax/telephonically.
5. The original EMD receiving authority releases the EMD to unsuccessful bidders after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier, after verification from the e-tendering portal website ([https:// etender.cpwd.gov.in](https://etender.cpwd.gov.in)>closed Tender>all) that the particular contractor is not L-1 tenderer and work is awarded.
6. The tender inviting authority calls for original EMD of the L-1 tenderer from EMD receiving authority immediately.

Details of Bank Account of “S” Division

1	Receipt Account No.	10933104631
2	Beneficiary Account Name	EX ENGG (S-DIV) CPWD (PAYMNT AC) CPWD, S-DIV EAST BLOCK-4, LEVEL-1, R.K. PURAM, NEW DELHI-66
3	IFSC Code	SBIN0001076
4	Bank Name	STATE BANK OF INDIA
5	Bank Branch	R.K. PURAM
6	Bank Address	SECTOR-1, BLOCK-VIII, Distt. NEW DELHI-110022
7	Bank emails	sbi.01076@sbi.co.in

Special Conditions

1.0 General

1.1 Specifications & Order of preference:

- 1.1.1 Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with

Civil work:

1. CPWD Specifications 2019 Volume- I with upto date amendments
2. CPWD Specifications 2019 Volume- II with upto date amendments

All above specifications shall be applicable with corrections slips up to the last date of submission of bid.

A copy for free download of all above specifications are available on www.cpwd.gov.in hence copy of the same is not included in the tender document but they forms part of tender.

All above specifications hereinafter shall be referred as CPWD specifications. Wherever CPWD Specifications are silent, the latest IS Codes/Specifications, National Building Code 2016, MoRTH specifications (5th Edition) published by IRC with upto date amendments or any other specification shall be followed.

- 1.1.2 The item provided in nomenclature in schedule of quantities has to be read with the general, special and additional conditions and additional/particular specifications, BIS codes, CPWD specifications, NBC-2016 given in the contract agreement for quoting rates and the strictest/harshes provision amongst all the mentioned conditions/specifications shall apply, for which nothing extra, whatsoever, shall be payable. If there is any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed

- (i) **Description of items as given in Schedule of Quantities.**
- (ii) **Particular Specifications**
- (iii) **Special Conditions and Additional conditions, if any.**
- (iv) **Standard GCC for CPWD Maintenance works 2023 with upto date correction slips.**
- (v) **Architectural/Structural drawings if any.**
- (vi) **CPWD Specifications 2019 with up to date Correction slips.**
- (vii) **Indian Standard Specifications of B.I.S.**
- (viii) **Manufacturers' specifications & as decided by Engineer-in-charge.**
- (ix) **National Building Code – 2016**
- (x) **Sound Engineering practices.**
- (xi) **Decision of Engineer-in-charge.**

"In the event of any variation/ discrepancy in the drawings, specifications and tender documents etc. the decision of the Engineer-in-charge shall be final binding and conclusive on the contractor and in the case the contractor have any doubt and the same should be got clarified immediately from the Engineer-in-charge and no claim of the contractor shall be entertained thereafter. Moreover, the agency is not allowed to take benefit out of any clerical/ grammatical mistake in the standard clauses/Schedule of Quantities/Specifications etc. being used in the agreement".

- 1.1.3 Any reference made to any Indian Standard Specifications, shall imply 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.

1.2 Scope:

- 1.2.1 The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works.
- 1.2.2 The works to be undertaken by the contractor shall inter alia include the following:
- Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
 - Obtaining of Statutory permissions wherever applicable and required.
 - Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
 - Warranty obligation for the equipment and/or fittings/fixtures supplied by the contractor.
- 1.2.3 Contractor shall provide all the shop drawings or layout drawings for all the co-ordinated services before starting any work or placing any order for any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer-in-charge prior to delivery of material at site.
- 1.2.4 The contractor shall prepare one sample of item which shall be got approved from the Engineer-in-charge. Only on acceptance of sample work, contractor will be allowed to commence the work and sample is to be preserved by the JE-in-charge of work till the whole work is completed. The quality of entire work should confirm to the approved samples.
- 1.2.5 The contractor and/or his Engineer should see the site order book every day and get the compliance noted by the junior Engineer/Assistant Engineer/Engineer-in-charge.

1.3 Tools & Plant:

- 1.3.1 No tools and plants including any special T&P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account.

1.4 Removal of Machinery, Tools & Equipment:

- 1.4.1 Removal of machinery, tools & equipment shall be allowed to be moved away from the site only when, in written opinion of Engineer-in-Charge, the same are no longer required at site of work.

1.5 Soil conditions of site:

- 1.5.1 Contractor(s) shall study the soil report and satisfy himself about complete characteristics of soil and other parameters at site. No claim whatsoever on account of any discrepancy between the sub-surface strata conditions that may be actually encountered at the time of execution of the work and those given in soil report, in-accuracy or interpretation thereof shall be entertained from the Contractor under any circumstances. The ground water table is in variable condition and it may vary from time to time.

1.6 Site condition:

- 1.6.1 The tenderer shall acquaint himself with the site of work and see the approach roads/paths to the site, working space available etc. before quoting his rates and no claim on this account shall be entertained by the department. Entry to the campus may be restricted from particular entrance gate and agency has to follow security rules of the campus & nothing extra shall be payable on this account.

- 1.6.2 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 as per the required specifications.
- 1.6.3 The site for execution of work has no space for labour hutments, batching plant or stacking of construction materials. Therefore, the agency shall have to arrange space outside the campus at its own risk and cost for labour huts, batching plant and stacking of materials required for construction, cost of which may be factored in, while quoting for the work. No claim, whatsoever, shall be admissible on account of hindrance or additional cost being incurred for these activities.
- 1.6.4 The land for labour camps & batching Plant and storage/dumping of contribution materials shall be arranged by the contractor at his risk and cost. The lease/rent charges shall be borne by the contractor.
- 1.6.5 Contractor shall plan his work accordingly so that there is least disturbance to the occupants and shall take care to cover/protect existing buildings, for which nothing extra shall be payable beyond the quoted rates. In case of failure on part of contractor to do so, the same shall be provided by the department at the risk and cost of contractor and decision of Engineer in charge in this regard shall be final and binding.
- 1.6.6 In case any shoring/protection is required to protect the adjacent area shall be taken care at free of cost for construction of basement below the ground level as it is only temporary arrangement. Nothing extra shall be paid on this account. The bidder shall take all precautions to avoid nuisance to the adjacent neighbors, trespassers, visitors, etc., and also for protecting their properties by taking all protection measures before taking up any of the excavation, piling, basement concreting work etc. The excavation shall be carried out by taking all the technical protective measures into consideration to safe guard the adjacent properties from land sliding, falling, cracking, or any other damage through any of the operations involved in erecting this building. He shall also follow all municipal guidelines of the local bodies to take up the construction. Nothing extra shall be paid on this account for any of the operations involved including obtaining statutory approval from the local bodies.

1.7 Precautionary measures:

- 1.7.1 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 levied on account of these operations in executing the contract. Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost. The contractor shall take all precautions to prevent his workmen and employees from removing and damaging any Flora (plant/vegetation) from the campus/site.
- 1.7.2 The contractor 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 work due to negligence on his part. No hindrances shall be caused to traffic, during the execution of the work. In case of any accident of the labourers/ contractual staff, the entire responsibility will rest on the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.
- 1.7.3 The contractor, his authorized representative, workmen etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.
- 1.7.4 The contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / Central/State Govt. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The contractor shall also adhere to all traffic restrictions notified by the local authorities. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and

shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.

- 1.7.5 The contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the CPWD, its officials & employees from any and all damages and claims that may arise on any account. The Contractor shall indemnify the department CPWD against all claims in respect of patent rights, royalties, design, trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.
- 1.7.6 Dismantling of cement concrete slabs, floors etc. inside the quarters/building shall be done with the help of mechanized vibratory hammer, drills etc. The work shall be carried out in such a way that there should be least disturbance to the nearby/ adjoining allottees /occupants. The work should be completed within least possible time. The contractor must ensure that there should be no damage to the supporting RCC/structural member of the buildings.
- 1.7.7 Vacant quarters will be locked by the contractor at his cost and quarters will not be allowed to be occupied or used by him/his staff/his workers. In case any quarters have been found to be occupied unauthorized, a compensation @ Rs 1000/- (Rupees One Thousand Only) per day per quarter shall be levied and the contractor will also be liable for action loss caused due to theft or any other causes, shall be made good by the contractor at this own cost.

1.8 General cleanliness of the site and Stacking & Storage of Materials:

- 1.8.1 All malba/rubbish/silt/waste/garbage etc. generated due to any operation from houses, office building and other open spaces whatsoever, shall be brought down through the staircase and shall not be thrown to the ground directly from first floor or second floor etc. Malba shall be collected in the mobile container arranged by contractor free of cost of suitable sized placed near the working place. The malba or building rubbish so collected shall be disposed off on daily basis by the contractor to the specified common disposal point in colony and same shall be disposed off on same day by agency with free of cost. After the collection of full truck load of the said malba (approx. 4.5 cubic metre), the same shall be disposed off by the contractor to the authorized municipal dhalao/dumping ground within Seven (7) days. In case of non-removal/disposal in the specified period, a Penalty of Rs. 1000/- (One Thousand) per day shall be levied on the contractor.

1.9 Temporary Water, Electricity & Telephone Connections:

- 1.9.1 The contractor shall make his own arrangements for water and for Electricity by obtaining electric connections and by providing diesel generators of adequate capacity if required and make necessary payments directly to the State Govt. departments concerned.
- 1.9.2 The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various electrical installations, fire pumps, wet riser / fire fighting equipment, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

- 1.9.3 Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department.
- 1.9.4 The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Department against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account.
- 1.9.5 The Department shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electrical supply shall be made by the Contractor for smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

1.10 Co-ordination with other agencies:

- 1.10.1 The Contractor shall conduct his work so as not to interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer-in-Charge. As far as possible, he shall arrange his work and place, so as not to interfere with the operations of other Contractors or shall arrange his work with that of the others, in an acceptable and coordinated manner and shall perform it in proper sequence.
- 1.10.2 Other agencies may also simultaneously execute and install the works and the contractor shall afford necessary facilities 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 available as specified elsewhere in the contract) and the contractor shall fix the same at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
- 1.10.3 The Contractor shall cooperate with and provide the facilities to the associate-Contractors and other agencies working at site for smooth execution of the work. The Contractor shall –
- (i) Allow use of scaffolding already erected, toilets, sheds etc.
 - (ii) Properly co-ordinate their work with the work of other Contractors.
 - (iii) Provide control lines and benchmarks to his associate-Contractors and the other Contractors.
 - (iv) Provide electricity and water at mutually agreed rates.
 - (v) Provide hoist and crane facilities for lifting material at mutually agreed rates.
 - (vi) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
 - (vii) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.

Resolve the disputes with other Contractor amicably and the Engineer-in-Charge shall not be **made intermediary or arbitrator. The contractor shall indemnify the Department against** any claim(s) arising out of such disputes.

1.11 SPECIAL CONDITIONS FOR SUPPLY OF MATERIALS:

- 1.11.1 The sample of all the items shall have to be got approved by the Contractor from the Engineer-in-charge before the supply commences and shall be without prejudice to the right of Engineer-in-Charge to get random samples tested out of the actual lot received.
- 1.11.2 Before the start of the work 100% of the total requirements or as decided by Engineer-in-Charge for material will have to be deposited with the concerned AE/JE in first instance, who shall also maintain an account of these materials and submit them with the bills for checking. 100% quantity of material shall be test checked by Junior Engineer and Assistant Engineer. If it is not feasible to deposit 100% material then the quantity of material to be bought at site shall be decided by the Engineer-In-Charge.
- If the material as instructed is not brought to the site within 7 days from the date of start of work, Earnest money/ Performance Guarantee shall be forfeited by Engineer in charge or his authorized representative by giving notice through site order book.
- 1.11.3 The contractor shall if required furnish the manufacturer's certificate that the material supplied satisfy the requirements of the relevant specifications. The manufacturing date and batch number shall be either inscribed or printed on the packaging/containers by the manufacturer. Only such materials bearing these details shall be accepted. As far as possible, fresh materials shall be brought to the site.
- 1.11.4 The Engineer-in-charge shall be at liberty to take respective sample (s) of each item of schedule of quantity in any approved laboratory as decided by him. The sample for testing shall be provided by the contractor. All other expenditure required to be incurred for taking sample; conveyances and packing etc. shall be borne by the contractor himself. In case any sample particular lot fails in testing the contractor shall be bound to replace the entire lot with fresh material of prescribed specification and the rejected lot shall be returned to the contractor only after fresh lot is supplied.
- 1.11.5 Rejected materials shall have to be removed by the contractor at his own cost immediately of the instructions of doing so.
- 1.11.6 In case of any dispute regarding rejection of quality of materials the decision of the Engineer-in-charge shall be final and binding upon the contractor.
- 1.11.7 Royalty, Octroi & Terminal Tax etc. at prevalent rates shall have to paid by the contractor himself and the rates quoted by him shall include these duties and nothing extra on, this account shall be payable.
- 1.11.8 The contractor shall have to produce the GST paid tax invoices to satisfy department that the material has been purchased from the authorized dealer and the GST has been paid.
- 1.11.9 The paints/other material shall be issued by the Junior Engineer/Assistant Engineer to the contractors after breaking the seal of the containers/packing and quantity to be issued shall be as per the daily requirement at the site. After days use balance quantity of paints etc., if any left, will be returned by the contractor to the Department. After use the empty container shall have to be returned to the Department and shall be preserved by JE In charge and will not be returned back to agencies till the finalization of the work.

1.12 Protection of Existing Services & buildings and Materials:

- 1.12.1 Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services 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 not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. Any damage to the building structure, fitting or any other articles etc. done by the

contractor or his workman during the execution of the work shall be made good by the contractor at his own cost.

- 1.12.2 The contractor shall be responsible for the watch and ward / guard of the buildings, safety of all fittings and fixtures including sanitary and water supply 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 client department. No extra payment shall be made on this account.

1.13 Rates and other conditions for payment:

The rates quoted by the Contractor **are deemed to be inclusive** of the following--

- 1.13.1 Site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, taking spot levels, survey with total station, compulsory use of helmet, safety harness and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers, welfare & training measures, preparatory works, working during monsoon or odd season, working beyond normal hours.

Unless otherwise specifically provided in the Schedule of quantities, the rates tendered by the contractor shall be deemed inclusive for works mentioned in the item description and nothing extra shall be payable to him on this account.

- 1.13.2 Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra over the schedule shall be paid on this account.

- 1.13.3 All labour, material, tools and plants and other inputs involved in the execution of the item.

- 1.13.4 Performance test of the entire installation(s) before the work is finally accepted.

- 1.13.5 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been included in the items.

- 1.13.6 The rates quoted by the tenderer, shall be inclusive of all taxes including GST, cartage, royalty etc.

- 1.13.7 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account.

- 1.13.8 The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All statutory taxes, levies, charges (including GST, water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and obtain all requisite licenses wherever required and shall pay to such authority all the fees that are required to be paid for the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.

- 1.13.9 The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the Department from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design, trademarks of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from

such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

- 1.13.10 The Contractor shall make all necessary arrangements for protecting from rain or likewise extreme weather conditions, the work already executed and for carrying out the further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account. Also, no claims for hindrance shall be entertained on this account.
- 1.13.11 In case the same item appears more than once in the schedule of work under the same sub head or among the different sub heads of works, the lowest rate quoted for that item shall be taken for other items also and tender will be evaluated accordingly.
- 1.13.12 The ESI and EPF contribution on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of employer paid by the contractor shall be reimbursed by the Engineer in charge to the contractor on actual basis. For reimbursement of ESI & EPF from the department the contractor shall submit an affidavit on stamp paper of Rs. 10 along with the duly paid challans stating "I have not claimed the reimbursement of this bill from anywhere else. I shall also not claim this from any other office in future".
- 1.13.13 In case of any force majeure, or stoppage of work due to non availability of funds, rain, ban by govt, lockdown due to pandemics etc., nothing extra shall be paid on account of blockage of machinery or capital or cost due to idle labor or accumulation of interest on any account of this work, unless mentioned otherwise in standard GCC Maintenance Works 2023 clauses.
- 1.13.14 For each residential quarter, the measurements as recorded in S.M.B./M.B. will be paid. Any portion of the quarters such as store rooms, inside almirahs/cupboards, etc. in which white/colour wash, could not be done for any reasons, suitable deduction will be made.
- 1.13.15 The theoretical consumption of materials like, satna lime, distemper, paint, water proof cement paint etc. shall be computed, as per the consumption given in the schedule of Theoretical consumption of materials. If there is variation between the actual and the theoretical calculations action shall be taken as below:-
- (a) In case the materials used are less than theoretical requirements, the cost for the materials used less shall be recovered from the contractor, subject to acceptance of quality of work accepted by the competent authority as below:-
- (i) If quoted rates of agency are above the estimated rates :-
- Recovery shall be made at 2 times of basic rate as given in D.S.R. 2023/ market rate for items not available in DSR 2023 plus carriage, plus 1% W.C., plus 15% contractor profit and over heads, plus 1% Labour Cess and plus 18% GST plus contractor's enhancement.
- (ii) If quoted rates of agency are below the estimated rates :-
- Recovery shall be at 2 times of basic rate as given in D.S.R. 2023/ market rate for items not available in DSR 2023 plus carriage, plus 1% W.C., plus 15% contractor profit and over heads, plus 1% Labour Cess and plus 18% GST.
- (b) For all excess use of materials over the theoretical consumption no extra payment shall be made to the contractor.

2.0 LABOUR AND SECURITY

- 2.1 No payment shall be made for construction of labour housing.

- 2.2 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.
- 2.3 The contractor shall made his own arrangement for housing labour at his own premises at his own cost. No Residential accommodation shall be provided to any of the staff engaged by the contractor. The contractor shall also not be allowed to erect any temporary set up for staff in the campus.
- 2.4 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. 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.
- 2.5 The Manpower supplied like Sewerman, Plumber, Carpenter, Beldar, Welder, Mason and others supplied by the contractor shall mark his/ her attendance in biometric attendance machine and same shall be duly verified by the JE/ AE concerned. The attendance shall also be submitted along with each running/ final bill otherwise recovery as mentioned in NIT shall be made. (Note- Not applicable for civil & electrical work). The Biometric machine shall be installed by the department for which total recovery of Rs 2,000/- shall be made from contractor bills.
- 2.6 The staff employed by the contractor should be well behaved, Polite & courteous. Any complaint against staff on behavior should be taken very seriously and such should be removed by the contractor immediately from the site.
- 2.7 The contractor shall make all safety arrangement required for the labour engaged by him at his own cost. All consequences due to negligence or due to lapse of security/safety or otherwise shall remain with the contractor. The department shall not be responsible for any mishap, injury, accident or death of the contractor's staff. No claim in this regard shall be entertained /accepted by the department.
- 2.8 If required as per written direction of Engineer-in-Charge, the contractor shall ensure Police verification of every staff deployed by him/her and a copy of police verification shall be provided to Engineer-in-Charge and Identity card to the workers shall be provided by the agency at his own cost. **The contractor shall provide uniform along with Badge and shoes within 7 days of start of work. In the event of non-compliance a recovery of Rs.25/- per day per employee shall be made.** The employee and labours engaged by the contractor under this contract shall wear neat and clean uniforms along with name badges as approved by Engineer-in-Charge.
- 2.9 Contractor shall be fully responsible for any damages caused to govt. Property or allottees property by his labour / staff in carrying out the work and shall be rectified by the contractor at his own cost.
- 2.10 No claims of the labour shall be entertained by the Department including that of providing employment, regularization of services etc.
- 2.11 The contractor shall take all safety precautionary measures to prevent any incident or accident causing injury /injuries to official/occupants of the area where work is being executed.

CONDITIONS FOR SUPPLY OF LABOUR

- 2.12 ~~Duty hours will be shift of 8 hours per day as per suitability of department, excluding lunch break.~~
- 2.13 ~~Substitute arrangement of staff shall be made well in advance, in case of absence of the staff provided, otherwise recovery at the following rate shall be made from the contractor from running/final bill:~~
- a. ~~Enquiry Cleark/Supervisor/Data Entry Operator @1500/- per day~~
- b. ~~Skilled labour @ Rs.1200/- Per day per person.~~
- c. ~~Unskilled labour @ Rs.1000/- Per day per person.~~

- 2.14 — ~~The agency has to make payment to all the person deployed upto 5th day of each calendar month. If it is found that the agency has failed to pay wages within the stipulated date, a compensation of Rs. 200/- per day per person shall be levied and the same shall be recovered from next RA bill.~~
- 2.15 — ~~The payment to the contractor will be released only after receiving proof of payment made to all the persons employed by agency.~~
- 2.16 — ~~The contractor shall have to produce the list of workers engaged at site along with a passport size photograph, their name and address to the Engineer in charge with their photo identity cards properly displayed during duty time. No extra payments shall be claimed by the contractor or its deployed staff from the Engineer in Charge for such items.~~
- 2.17 — ~~The contractor has to pay the workers as per the minimum wages act (as prescribed by Central Govt., and amended time to time). The contractor shall be required to produce the wages payment registers with every bill duly certified by the representative of the Engineer in charge. All the liabilities due to mis happenings of any kind with any of the worker, shall be borne by the contractor. Any compensation, which becomes due to his worker as per workman compensation act / any other prevailing act shall also be borne by the contractor.~~
- 2.18 — ~~Minimum wages (as per latest Govt. notification) shall have to be paid to the worker as mentioned in the respective item in the schedule of quantity. The minimum salary paid to each employee per month as mentioned in the respective item in the schedule of Quantity shall be revised as per the orders the Ministry of Labour & Employment, Office of the Chief Labour Commissioner (C) New Delhi or Government of Delhi NCTD whichever is higher to be paid by the agency time to time and the same will be reimbursed by the division under Clause 10 C upon submission of proof of payments.~~
- 2.19 — ~~The contractor shall be responsible for behavior and conduct of his worker. No worker with doubtful integrity or having a bad record shall be engaged by the contractor. Contractor shall be fully responsible for any damages caused to govt. Property or allottees property by his labour / staff in carrying out the work and shall be rectified by the contractor at his own cost.~~
- 2.20 — ~~The contractor/agency shall make payment to all his Labour / Workers through online bank transfer to his bank account under intimation to this office. In no case cash payment or payment by cheque shall be made.~~
- 2.21 — ~~The contractor must provide EPF numbers and ESI cards, duly activated, to all the deployed manpower at Engineer in Charge office. The contractor should also ensure that EPF statements to the deployed manpower are provided immediately after the financial year closing. Any delay in submission of these records will force Engineer in Charge to deduct a proportionate amount from the bill, as decided by the competent authority of Engineer in Charge. For reimbursement of ESI & EPF from the department the contractor shall submit an affidavit on stamp paper of Rs. 10 along with the duly paid challans stating "I have not claimed the reimbursement of this bill from anywhere else. I shall also not claim this from any other office in future".~~
- 2.22 — ~~This contract shall be only on job work basis and is not a full time employment of agency's staff. The workers so engaged for the work will be an employee of the contractor and therefore will not have any right to claim for absorption the department.~~
- 2.23 — ~~The agency will be reporting to the Junior Engineer of each section and shall be responsible for the implementation of the instructions issued from time to time. The agency shall submit a report of the extra ordinary events of each day and daily report of the guards engaged to the Assistant Engineers in charge of the work.~~
- 2.24 — ~~The contractor shall take at his own cost, if required, necessary insurance cover in respect of staff and other personnel to be employed or engaged by him in connection with the aforesaid mentioned services to be rendered to CPWD and shall comply with all relevant labor laws i/c those pertaining to Provident fund, ESI, Bonus etc. as~~

applicable to the area as existing or as may be mentioned during the contract period and shall indemnify CPWD against all acts of omissions, fault, breaches and or any claim or demand, loss injury and expenses to which CPWD may be party or involved as a result of the contractors failure to comply and of the obligation under the relevant act law which the contractor is to be follow.

- 2.25 — In the case agency fails to fulfill the minimum statutory requirements (EPF/ESIC) as per the conditions of the tender document and fails to produce the concerned documents, it shall be treated as breach of the contract and the Contractor is liable to be blacklisted by the Engineer in Charge, in addition to forfeiting of the monthly bills and Performance Security Deposit.
- 2.26 — If the employee of the contractor goes to court or any other legal authorities etc. in or anywhere in India at any time in connection to this contract the department shall not be made a party of it in any way the employee of the contractor/ or by the contractor himself. This fact should be clearly and legally told to all the employees by the contractor and the contractor shall be fully responsible for all losses/ damages/ misconduct etc. arises on this account and shall be fully responsible for the conduct of the staff deputed by him.
- 2.27 — Bonus at the rate decided by the government of India or as per order of Ministry of Labour issued from time to time, shall paid by the contractor to every worker/employee. The bonus paid by the contractor will be reimbursed by the department.
- 2.28 — No claims of the labour shall be entertained by the Department including that of providing employment, regularization of services etc.

SPECIAL CONDITIONS FOR WATCH & WARD

- 2.29 — The entire area of Sector 2, Service Centre 330 under S Division shall be placed under security by the agency on each day upto the satisfaction of Engineer in charge.
- 2.30 — The contractor shall employ each security guard for Eight (08) Hours duty. Contractor has to provide the security in the Sector 2, Service Centre 330 round the clock, including Sundays and holidays and nothing extra shall be paid on account of holidays work.
- 2.31 — The contractor shall employ Security Guard (in Uniform) in each shift in the Sector 2, Service Centre 330 under S Division as per direction of Engineer in charge, including all T & P such as Torch, Whistle, Lathi etc. and nothing extra shall be paid on this account.
- 2.32 — Agency to provide discharge certificate/Retirement book or requirement document for each security guard/security in charge. Age of Security Guard shall not be less than 18 years and not more than 55 years.
- 2.33 — The contractor shall be bound to provide guards in anywhere in campus area of Building as and when directed by the Engineer in charge. Nothing extra shall be paid on this account.
- 2.34 — The agreement can be terminated even before the stipulated period without assigning any reason. Contractor's claim will not be entertained on this account.
- 2.35 — The agency may be asked to disengage any particular guard at any time without assigning any reason what so ever.
- 2.36 — The contractor shall also give training to keep away anti social elements from the land and proper parking of vehicles outside Sector 2, Service Centre 330 under S Division & for proper maintenance of park.
- 2.37 — Contractor shall be responsible for any type of theft from the campus and if any negligence found from the side of contractor (as decided by engineer in charge), the cost of the material shall be recovered from the payment of the contractor.

~~Contractor shall provide the Name, I.D. Proof and Mobile Number of all security guards & roster chart of duty, before start of work or before every first day of the month. If there is any change, in the duty as per the roster chart, the agency has to give the name of the substituted security guard along with his I.D. Proof & Mobile No. in advance at least 4:00 hours, otherwise it will be presumed that no Security Guard is provided, and necessary recovery @ of Rs. 1200/- per shift per day shall be recovered without any notice. Double shift of Security Guard with overtime shall not be permitted.~~

3.0 SAFETY MEASURES

- 3.1 CPWD Safety code detailed out in GCC 2023 along with the provisions contained in "Safety, Health and Environment Health Book 2019" available CPWD web site www.cpwd.gov.in, shall be followed by the Contractor. Necessary personal protective and safety equipment's (PPEs) such as Head Protection (Safety helmets), Foot Protection (Safety footwear, Gumboot, etc.), Body Protection (High visibility clothing (waistcoat/jacket, Apron etc.), Personal fall protection (Full body harness, Rope-grap fall arrester), Eye protection (Goggles, Welders glasses, etc), Hand protection (Gloves, finger coats, etc.) shall be provided to the all site Engineers, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.

All workers of contractor and associate agencies, invariably and at all the times, must follow all safety norms, adopt safe construction practices and use all required safety gadgets in their working throughout the project duration.

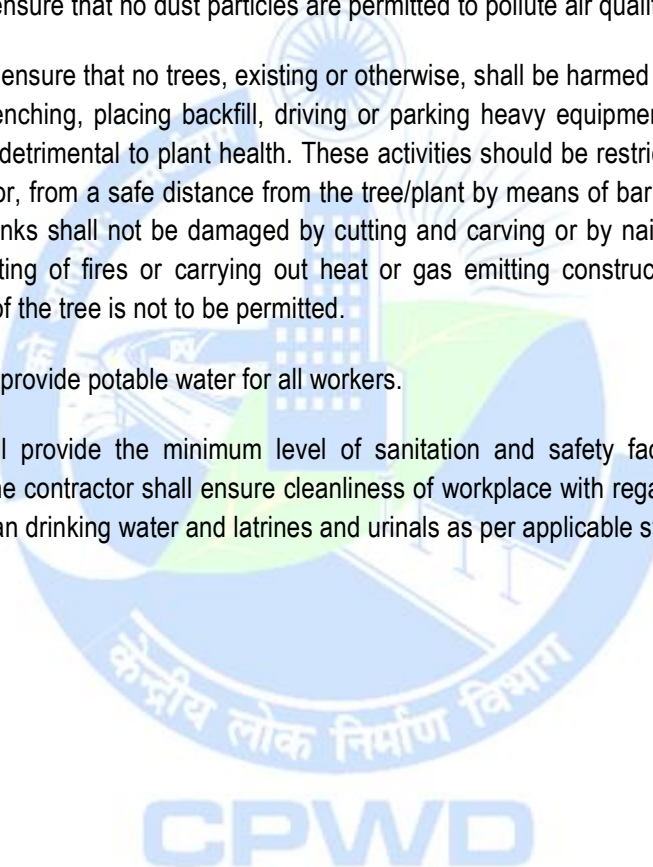
- 3.2 The contractor shall issue **Photo Identity Cards** with unique numbers containing salient information of workers for the labour & his staff.
- 3.3 The Contractor shall monitor and achieve the objectives of construction safety continuously, progressively and through affirmative action, and shall oversee implementation of safety program over the entire construction period.
- 3.4 Necessary protective and safety equipment shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and used at site.
- 3.5 No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer -in- Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.
- 3.6 In case of any accident happens in the campus during execution due to lack of safety measures or any other reason what so ever, the agency is fully responsible and all the expenses on this account shall be borne by the contractor and nothing extra on this account shall be paid to the contractor and CPWD will not be responsible at all.

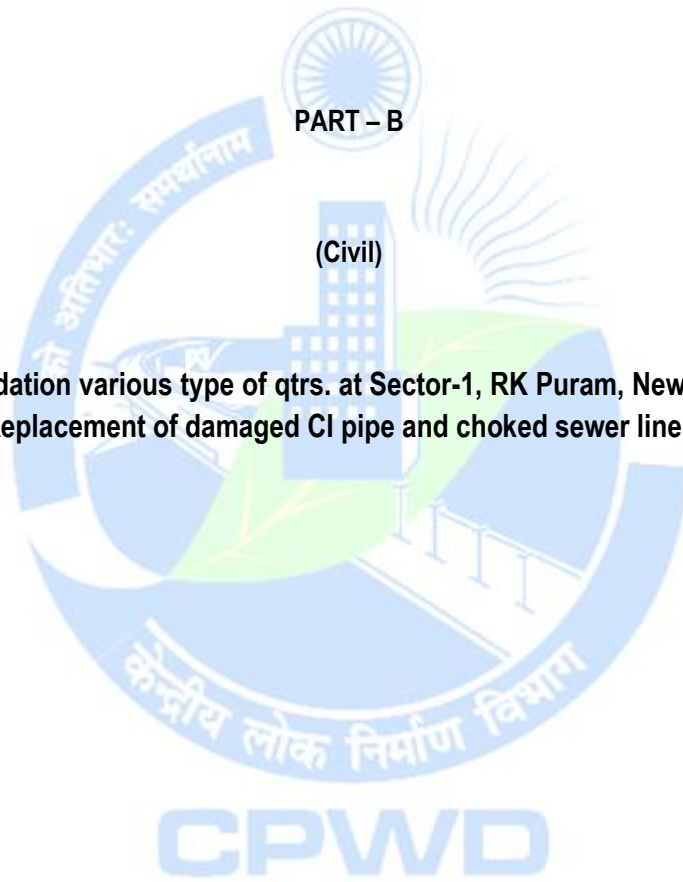
4.0 SPECIAL CONDITIONS FOR PREVENTION OF AIR WATER LAND POLLUTION:

- a) The contractor shall not store/dump construction material or debris on metalled road.
- b) 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.
- c) 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.

- d) 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.
- e) 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.
- f) The contractor shall ensure that C&D waste is transported to the C&D waste site only and due record shall be maintained by the contractor.
- g) 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.
- h) The contractor shall ensure that no trees, existing or otherwise, shall be harmed and damage to roots should be prevented during trenching, placing backfill, driving or parking heavy equipment, dumping of trash, oil, paint, and other materials detrimental to plant health. These activities should be restricted to the areas outside of the canopy of the tree, or, from a safe distance from the tree/plant by means of barricading. Trees will not be used for support; their trunks shall not be damaged by cutting and carving or by nailing posters, advertisements or other material. Lighting of fires or carrying out heat or gas emitting construction activity within the ground, covered by canopy of the tree is not to be permitted.
- i) The contractor shall provide potable water for all workers.
- j) The contractor shall provide the minimum level of sanitation and safety facilities for the workers at their camp/labour site. The contractor shall ensure cleanliness of workplace with regard to the disposal of waste and effluent; provide clean drinking water and latrines and urinals as per applicable standard.





PART – B

(Civil)

**Name of work: Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27
(SH:- Replacement of damaged CI pipe and choked sewer line pipe)**

ADDITIONAL CONDITIONS (Civil Component)

1.0 GENERAL

- a) The work is to be carried out in **GPRA Colony, Sector-1, R.K.Puram, New Delhi**. The description of work is **Upgradation various type of qtrs. at Sector-1, RK Puram, New Delhi during 2026-27 (SH:- Replacement of damaged CI pipe and choked sewer line pipe)** The work has to be carried out in shortest possible time with minimum inconvenience to the allotted/client. For that the, requirement of material & manpower has to be well planned, the labour should be technically competent and there should be no communication gap at any time. Therefore, the department intends to carry out the work in following manner:
- b) The work shall be carried out as per CPWD Specifications 2019 Vol. I & II with upto date correction slips.
- c) The work shall be executed and measured as per metric dimensions given in the Schedule of quantities, drawings etc. (F.P.S. units wherever indicated are for guidance only).
- d) Wherever any reference to any Indian Standard Specification occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any.
- e) The contractors shall quote their rates inclusive of all sorts of taxes, cartage, royalties etc. complete.
- f) Unless otherwise specified in the schedule of quantities the rates for all items of the work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source, such as rains, floods, and sub-soil water table being high due to any other cause whatsoever.
- g) The work shall be carried out in accordance with the approved Architectural drawings, structural drawings and approved shop drawings. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings 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 the basis of any erroneous and or incomplete information.
- h) 1% (one percent) water charges, 2% Income Tax plus surcharge and GST (rate as applicable at the time of payment as decided by the government of India), 1% labour, and other recoveries as per rule shall be recovered from the each running/ final bill on the gross amount of bill. If contractor makes his own arrangement of water required for the work then after submission of proof/voucher (GST paid bill & photographs etc.) stating location/site of work for purchase/arrangement of water for the work then no water charge shall be recovered.
- i) Any quarter which will be handed over to the contractor for making the quarter habitable under change of tenancy/upgradation, will have to be completed in all respect with in a maximum period of 45 days (excluding hindrances from department site). In case of failure to complete the work with in time as mentioned above, Rs. 5,000/- (Rupees Five Thousand only) per quarter per day shall be recovered from the bill of contractor subject to maximum of Rs. 50,000/- per quarter, in addition to the levy of compensation under clause-2. For proof of departmental hindrances, necessary documentation such as letter of correspondences, entry in hindrances register and site order book entry to be produced.

1.1 MINIMUM QUALITY ASSURANCE PLAN (FOR THE WORK COSTING MORE THAN 10 LAC)/TESTING OF MATERIALS: -

- 1.1.1 Contractor will be required to engage well-experienced supervisors, engineers, skilled labour and deploy modern T&P and other equipments to execute the work in a time bound manner. Many items like exposed finish form work, specialized flooring work, factory made door- window shutters, proper slope maintaining in toilet units, sanitary-

water supply installation, textured finishing, aluminium and glass work and water proofing treatment will specially require engagement of skilled workers having experience particularly in execution of such items.

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. 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.

All the materials to be used in the work, to give the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer-in-Charge.

- 1.1.2 Tests which are mandatory as per CPWD specification 2019 Vol I & II are to be carried out by the contractor. While deciding these criteria CPWD Specifications & Provisions of BIS Code and Standard Practices may be referred if not mentioned in the annexure mentioned above. With each Running Bill, the details of test carried out shall be submitted by the contractor.
- 1.1.3 Samples of materials required for testing shall be provided free of charge by the contractor. The contractor shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimension as may be necessary. The sealed samples are to be handed over to the testing lab by the contractor in the presence of representative of Engineering in charge. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.
- 1.1.4 The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.
- 1.1.5 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 result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.
- 1.1.6 **Maintenance of Register of Tests:-**
- (i) All the registers of tests 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.
 - (ii) various registers to be issued to and maintained by the contractor are:
 - a. Materials at site account register.
 - b. Cement register.
 - c. Master test registers.
 - d. Cube test register.
 - e. Paint/chemical register.
 - f. Inspection register.

- g. Drawing register.
- h. Register of Wages

- (iii) All Samples of materials including Cement Concrete Cubes shall be taken by Contractor jointly with JE in charge of work 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 contractor in presence of AE in charge of work. All the necessary assistance shall be provided by the contractor. Cost of sample materials is to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site.
- (iv) All the test in field lab setup at Construction Site shall be carried out by the Engineering Staff deployed by the contractor which shall be 100% witnessed by representative of the Engineer in Charge. Minimum 10% of all samples should be tested in outside approved laboratory/ Govt. Engineering colleges.
- (v) All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by Engineer in Charge or his representative.
- (vi) Contractor shall be responsible for safe custody of all the test registers.

1.1.7 Maintenance of Material at Site (MAS) Register -

- (i) All the MAS Registers including Cement and Steel Registers shall be maintained by Contractor which shall be issued to the contractor by Engineer-in-charge along with the award letter.
- (ii) The contractor shall get 100% test checked by JE or by AE if there is no JE after each entry of receipt of material at site in MAS register.
- (iii) The contractor shall get MAS Register test checked by JE at least twice a week and at least once a week by AE. If there is no JE is available then MAS register must be checked by AE at least twice a week.
- (iv) Cement register shall be got reviewed from Divisional Engineer at least one in a month by the Contractor.

1.1.8 The ADGs/SDGs of the concerned region will approve the private/government labs for testing.

1.1.9 Frequency of testing of material will be as per frequency laid down in CPWD Specification or otherwise specified. In case there is any discrepancy in frequency of testing as given in list of mandatory tests and that in individual sub-heads of work as per CPWD Specifications higher of the two frequencies of testing shall be followed and nothing extra shall be payable on this account.

1.1.10 It is mandatory to the contractor to submit copy of all test registers, Material at Site Register along with each alternate Running Account Bill and Final Bill. These registers shall further be checked by Assistant Engineer (P)/ Senior Draughtsman in Division Office and receipts of registers should also be acknowledged by Accounts Officer by signing the copies and register to confirm receipt in Division office.

If all the test registers are not submitted by contractor along with each alternate R/A Bill & Final Bill, no payment shall be released to the contractor.

1.1.11 Water tanks, taps, sanitary, water supply & drainage pipes, fittings & accessories should conform to bye-laws of local body/corporation, where CPWD specifications are not available.

1.1.12 The contractor shall prepare all the needed shop drawings well in advance at his risk and cost deemed to be included in the overall quoted cost and get them approved before placing the order and execution of the item.

1.1.13 The contractor shall get the water tested with regard to its suitability and conforming to the relevant IS Code.

- 1.1.14 The following procedure should be followed in case of removal of rejected/sub-standard materials from the site of work.
- (a) 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.
- (b) 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, 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.

1.2 DELETED

1.3 SAMPLE OF MATERIALS:-

- 1.3.1 All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which 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.
- 1.3.2 The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contractor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.
- 1.3.3 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. Samples including brand / quality of materials and fittings to be used in the work 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.
- 1.3.4 BIS marked materials except otherwise specified shall also be subjected to quality test besides testing of other materials as per the specifications described for the item/material. Wherever BIS marked materials are brought to the site of work, the contractor shall, furnish manufacturer's test certificate or test certificate from approved testing laboratory to establish that the material procured by the contractor for incorporation in the work satisfies the provisions of specifications relevant to the material and / or the work done.
- 1.3.5 For certain items, if frequency of tests is neither mentioned in the CPWD Specifications nor BIS, then tests shall be carried out as per directions of Engineer-in-Charge.
- 1.3.6 Contractor may have to show mock up of important items like flooring, false ceiling, door window, fittings & fixtures, modular kitchen etc. as directed by Engineer-in-Charge.
- ~~1.3.7 Contractor may have to submit warranty for FIVE (05) YEARS for SMC/GRP Water Storage Tanks against any manufacturing defect/leakages from the date of Supply.~~

1.4 Setting Out

1.4.1 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.

1.5 ENGAGING SPECIALISED AGENCIES FOR WORKS:

1.5.1 The list of specialized items for civil works is as below:

a) -----

1.5.2 The Contractor shall engage specialized agencies having adequate technical capability and experience of having executed at least one work of similar items for executing the specialized items of the work and/or any other items of work where specialized firm is required to be engaged as per contract conditions.

1.5.3 The Specialized agency for the work shall be got approved from the Engineer-in-Charge well before actual commencement of the item of work. The contractor shall submit the list of specialized agencies proposed to be engaged by him along with their technical capability and necessary performance certificates, within 30 days of the award of work to substantiate technical capability and experience of the agency for prior approval of the Engineer-in-Charge.

1.5.4 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.

1.5.5 ELIGIBILITY CONDITIONS FOR APPROVAL OF SPECIALIZED AGENCIES:

The agency must be currently actively engaged in execution of the said specialized item and must have who have satisfactorily executed similar work during last 7(Seven) years ending last day of month previous to the one in which tenders are invited as below:

- Three similar works each of value not less than 40% of the estimated cost put to tender of corresponding specialized item

or

- Two works each of value not less than 60% of the estimated cost put to tender of corresponding specialized item

or

- One work of value not less than 80% of the estimated cost put to tender of corresponding specialized item

For ascertaining the above criteria, contractor shall provide certified copy work order, completion certificate, and performance certificate against each completed similar work for verification by Engineer in charge. In case required and directed by Engineer in charge, contractor shall get such similar completed work inspected by Engineer in charge and contractor shall extend all necessary help for same at no extra cost to the department. Decision as to approve or reject the proposed specialized agency based on the inspection of the completed work shall be final

and binding on the contractor and no claim, whatsoever, shall be admissible on this account and the contractor shall be required to propose another specialized agency as per the required eligibility criteria.

All the above Specialized items of work shall be executed by the bidder either directly through the Manufacturer of the items or through their authorized applicators/installers only.

1.6 Architectural and structural Drawings (Wherever applicale):

- 1.6.1 Although architectural drawings are either uploaded in the web along with NIT for reference to the bidder or made available in the office of NIT inviting authority, CPWD, Delhi, the main working & detailed architectural drawings shall be issued as per requirements at site. It is the duty of the contractor to intimate the requirement of drawings reasonably well in advance and no hindrance shall be allowed on this account.
- 1.6.2 The Architectural drawings given in the tender are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Engineer-in-Charge.
- 1.6.3 The work shall be carried out in accordance with the drawings to be issued from time to time, by the Engineer-in-Charge and structural drawings if any to be submitted and got approved by the contractor from Engineer-in-charge.
- 1.6.4 The information and site data shown in the drawings and mentioned herein and also elsewhere in the tender documents are being furnished for general information and guidance only. The department shall not bear responsibility for lack of such knowledge and also the consequences thereof. The Engineer-in-charge in no case shall be held responsible for the accuracy thereof or any interpretation/ or conclusions drawn there from by the contractor.

2.0 CEMENT & STEEL REINFORCEMENT

- 2.1 Contractor has to procure Cement and Steel and has to produce manufacturers test certificate and challan for each lot of Cement & Steel Reinforcement procured at site.

2.2 CEMENT:-

- 2.2.1 The contractor shall procure 43 grade ordinary Portland Cement (OPC) conforming to IS: 8112 / Portland Pozzolana Cement (PPC) conforming to IS: 1489 (Part-1) as stipulated in the items of work, from reputed manufacturers of cement as mentioned in **“List showing preferred brands / Manufacturers / Makes”**.
- 2.2.2 Supply of cement shall be made in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS Codes. The cement for such testing purpose shall be supplied by the contractor free of charge. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS Codes, 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. The cost of tests shall be borne by the contractor.
- 2.2.3 Cement shall be brought at site in bulk supply of approximately 10 tonnes or as decided by the Engineer-in-Charge.
- 2.2.4 OPC & PPC bags shall be stored in separate godowns. Separate godowns for tested cement and fresh cement (under testing) to be constructed by the contractor at his own cost as per sketches given in C.P.W.D Specifications having weather-proof roofs and walls. The size of the cement godown is indicated in the sketches for guidance. The actual size of godown shall be as per site requirements and nothing extra shall be paid for the same. Each godown shall be provided with a single door with two locks. The keys of one lock shall remain with Engineer-in-Charge or his authorized representative of the work and that of other lock with the authorized agent of the contractor at the site of work so that the cement is issued from godown according to the daily requirement with the knowledge of both

parties. The account of daily receipt and issue of cement shall be maintained in a register in the prescribed proforma and signed daily by the contractor or his authorized agent and Engineer-in-Charge or his authorized representative in token of its correctness. The day to day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the contractor or his authorized representative which shall be duly signed by the authorized representative of the Engineer-in-Charge before issue to the work on day to day basis.

Required number of cement godowns each having capacity as decided by the Engineer-in-Charge shall be constructed by the contractor at site of work for which no extra payment shall be made. The contractor shall be responsible for the watch and ward and safety of the cement go-downs. The contractor shall facilitate the inspection of the cement go-downs by the Engineer-in-Charge at any time.

- 2.2.5 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in 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 the conditions laid therein.
- 2.2.6 If the quantity of cement actually used in the work is found to be more than the theoretical quantity of cement including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work, the quantity of cement used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in Clause - 38), the cost of quantity of cement not so used shall be recovered from the contractor as specified in schedule. Decision of the Engineer-in-Charge in regard to theoretical quantity of cement which should have been actually used as per the schedule and recovered at the rate specified, shall be final and binding on the contractor.
- 2.2.7 Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-Charge.
- 2.2.8 Damaged cement shall be removed from site immediately by the contractor on receipt of 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.
- 2.2.9 In case the contractor brings surplus quantity of cement the same shall be removed from the site after completion of work by the contractor at his own cost after approval of the Engineer-in-Charge.
- 2.2.10 Cement, which is not used within 90 days from its date of manufacture, shall be retested at approved laboratory. Until the results of such tests are found satisfactory, it shall not be used on the work.

2.3 STEEL REINFORCEMENT: -

- 2.3.1 (a) The Contractor shall procure IS marked TMT bars of various grades from the Approved steel manufacturers (as per the list of approved makes furnishing part of this document) or their authorized dealers having valid BIS license for IS: 1786-2008.

The procured steel should have following qualities:

- Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
- Consumption of steel should be accurate as per design
- Steel should have no brittleness problem in finished product.
- Steel should carry the quality of corrosion and earthquake resistance.
- Quality steel with achievement of proper level of Sulphur and phosphorus as per IS: 1786-2008.

- 2.3.2 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.
- 2.3.3 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 IS : 1786 from approved labs. 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 on written orders from the Engineer-in-charge to do so. Else the department shall remove it and recover double the cost of removal from the contractor.
- 2.3.4 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as decided by the Engineer-in-charge. In no case secondary reinforcement steel will be allowed to use at site.
- 2.3.5 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their 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.
- 2.3.6 For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:

Size of bar	For consignment below 100 tonnes
Under 10mm dia bars	One sample for each 25 tonnes or part thereof.
10mm to 16mm dia bars	One sample for each 35 tonnes or part thereof.
Over 16mm dia bars	One sample for each 45 tonnes or part thereof.

- 2.3.7 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 2.3.8 The actual issue and consumption of steel on work shall be regulated and proper accounts shall be maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations leading to under designing of the structure, the work shall be summarily rejected, otherwise recovery at the rate so prescribed shall be made after ensuring structural soundness and stability. In case of excess consumption, no adjustment needs to be made.
- 2.3.9 The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge. 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.
- 2.3.10 The contractor shall submit original vouchers from the manufacturer for the total quantity of steel supplied under each consignment to be incorporated in the work. All consignment received at the work site shall be inspected by the Site staff along with the relevant documents before acceptance. The contractor shall obtain Original Vouchers and Test Certificates and furnish the same to the Engineer-in-Charge in respect of all the lots of steel brought by him from approved supplier to the site of work. The original vouchers and test certificates shall be defaced by the Site staff and kept on record in the site office.

- 2.3.11 Reinforcement including authorized spacer bars and laps shall be measured in length of different diameters as actually (not more than as specified in the drawings) used in the work nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.
- 2.3.12 The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications will be considered for conversion of length of various sizes of M.S. Bars, Steel Bars and T.M.T. bars into Standard Weight.
- 2.3.13 Records of actual Sectional weights shall also be kept dia-wise and 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.
- 2.3.14 (a) If the Derived Weight as in sub-para (2.3.13) above is less than the Standard Weight as in Sub-para (2.3.12) above then the Derived Actual Weight shall be taken for payment provided, if it is within the following tolerances specified in IS1786-2008, otherwise whole lot will be rejected.

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

b) If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight as per in sub-para (2.3.12) 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.

c) 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. In case of buildings, wherever the situation necessitates, the change over shall be permitted only from any one level onwards. In case of foundations, all foundation elements (footings and grade beams) shall have the same kind of steel. In the case of columns, all structural elements up to the level of change, where the changeover is taking place should have the same kind of steel as those in columns.

The reinforcing steel brought to site of work shall be stored on brick / timber platform of 30/40-cm height, nothing extra shall be paid on this account.

2.4 SAFETY IN CONSTRUCTION

- 2.4.1 The contractor shall employ only such methods of construction, tools and plants as are appropriate.
- 2.4.2 The contractor shall take all precautions and measures to ensure safety of works and work man and shall be fully responsible for the same.
- 2.4.3 Safety pertaining to construction such as centering & shuttering, scaffolds, ladders, working platforms, gangway etc. shall be governed by CPWD safety code, relevant safety codes and the directions of Engineer in charge.
- 2.4.4 All the staging to be either of tubular steel structure with adequate bracings as approved or made of built up structural sections made from rolled structural steel sections.

- 2.4.5 Form work shall be properly designed for self weight, weight of reinforcement, weight of fresh concrete and in addition the various live loads likely to be imposed during construction process.
- 2.4.6 The safety code as lay down in respective clauses of Agreement shall be strictly followed.
- 2.4.7 Necessary First-Aid kit shall be available at the site.
- 2.4.8 Adequate signage indicating 'Work in Progress – Inconvenience caused is Regretted' or Diversion Signs shall be put on the sites conspicuously visible to the public even during night hours. These are extremely essential where works are carried out at public places in use by the public.

2.5 Scaffolding & Staging:

- 2.5.1 Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the contractor. The scaffolding shall be provided strictly with steel double scaffolding system having two sets of vertical supports with steel staircase for inspection of works by engineer in charge, suitably braced for stability, with all the accessories, gangways, etc with adjustable suitable working platforms to access the areas with ease for working and inspection. Single scaffolding system is strictly prohibited and shall invite necessary action. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. Nothing extra shall be payable on this account. It shall be ensured that no damage is caused to any structure due to the scaffolding.
- 2.5.2 The whole building shall be covered with Green Nets which shall be properly tied with the scaffolding in order to prevent any object from falling outside the work/scaffolding area.

2.6 Product delivery, storage and handling of chemicals:

- 2.6.1 The contractor shall construct storage space for Chemicals to ensure that the storage conditions are as recommended by the manufactures.
- 2.6.2 All the materials shall be procured and delivered in sealed containers with labels legible and intact.
- 2.6.3 All the chemicals (polymers, epoxy, water proofing compound, plasticizer, Polysulphide, all exterior and interior paints, polish etc.) shall be procured in convenient packs say 20 litres/Kgs.} capacity packing only or as approved by the Engineer-in-Charge, and not in bigger capacity containers, say 200 litre (Kgs.) drums unless otherwise specifically permitted by the Engineer-in-Charge. One sample from each lot of the chemical procured by the contractor shall be tested in the approved.
- 2.6.4 All material required for the execution of the work shall be got approved, procured and deposited with the Departmental supervisory staff. The materials shall be kept in joint custody of the contractor and the Department. The watch and ward of such material shall, however, remain to be the responsibility of the contractor and no claim, whatsoever, on this account shall be entertained. Different containers of each chemical shall be serially numbered on packing and also consumed in that order.
Day-to-Day account of receipt, issue and balance shall be regulated by the Department and proper account shall be maintained at site of work in the prescribed form as per the standard practice.
- 2.6.5 All the chemicals shall be procured by the contractor directly from the manufacturer. In exceptional circumstances, the contractor may be allowed to procure the materials from the authorized dealers of the manufacturers, if specifically permitted by the Engineer-in-Charge.
- 2.6.6 The original copies of challan / cash memos towards the quantity of various chemicals procured shall be made available by the contractor at the request from the Engineer-in-Charge and a copy of the same shall be kept in record.
- 2.6.7 The Name of manufacturers, manufacturer's product identification, manufacturer's mixing instructions, warning for handling and toxicity and date of manufacturing and shelf life shall be clearly and legibly mentioned on the labels of the each container.

- 2.6.8 The contractor shall submit for the chemicals procured, manufacturer's and / or authorized dealer's certificate regarding supplying and verifying conformance to the material specifications, as specified.
- 2.6.9 All filled containers shall be handled in safe manner and in a way to avoid breaking container seals.
- 2.6.10 Empty containers of the chemicals should not be removed from site till the completion of work and shall be removed only with the written approval of the Engineer-in-Charge.
- 2.6.11 All arrangements for measuring, dosing and mixing of material / chemicals at site have to be made by the contractor.
- 2.6.12 Contractor shall suitably advise his site Engineer and all the workers as regards safe handling of chemicals. Necessary protective and safety equipments in form of hand gloves, goggles etc. shall be provided by the contractor and be also used at site.
- 2.6.13 All incidental charges of any kind including cartage, storage and wastage and safe custody of material etc. shall be borne by the contractor and no claim, whatsoever, shall be entertained on this account.
- The chemicals shall be tested in an approved independent laboratory at the frequency as specified. If required, more samples may have to be tested as per the directions of the Engineer-in-Charge. Nothing extra shall be payable on this account. Testing charges shall be borne by the contractor.



PARTICULAR SPECIFICATIONS

(Civil Component)

1.0 EARTH WORK:-

- 1.1 Earth work shall be executed as per CPWD specifications-2019- Vol. I & Vol. II and National Building Code 2016 with upto date correction slips.
- 1.2 All the major excavation shall be carried out by mechanical excavator. No extra payment shall be made for that.
- 1.3 Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machinery's and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

2.0 CONCRETE & R.C.C. WORK:-

2.1 CONCRETE WORK:

- 2.1.1 The work shall be done in accordance with CPWD Specifications-2019- Vol. I & Vol. II with upto date correction slips.
- 2.1.2 If the quantity of cement actually used in the work is found to be more than the theoretical quantity of cement including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work, the quantity of cement used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 38) the cost of quantity of cement so less used shall be recovered from the contractor at the rate as specified in schedule 'F'. Decision of the Engineer-in-Charge in regard to the quantity of cement which should have been actually used as per the schedule and recovery at the rate specified shall be final and binding on the contractor.
- 2.1.3 For non-scheduled items, the decision of the Chief Engineer regarding theoretical quantity of the cement which should have been actually used shall be final and binding on the contractor.

2.2 Ready Mix Concrete:

- 2.2.1 The contractor shall bring Ready Mix Concrete from approved RMC plants as mentioned in the list showing preferred Brands/ Manufacturers/Makes enclosed in this NIT.
- 2.2.2 Notwithstanding the approval granted by Engineer-in-charge, the contractor shall be fully responsible for quality of concrete including input control, transportation and placement etc.
- 2.2.3 All required relevant records of RMC shall be made available to the Engineer-in- charge or his authorized representative. The E-in-C shall, as required, specify guidelines & additional procedures for quality control & other parameters in respect of materials and production & transportation of concrete mix, which shall be binding on the contractor & the RMC plant.
- 2.2.4 The contractor may use already approved design mix of required grade of concrete available with the department or any approved design mix available with him after getting the same approved from the Engineer-in-charge. A nominal deduction of Rs. 20,000/- for each design mix shall be made from running account bill of the contractor for such case.

3.0 FLOORING

- 3.1 Whenever flooring is to be done in patterns of tiles and stones, the contractor shall get samples of each pattern laid and approved by the Engineer-in-charge before final laying of such flooring. Nothing extra shall be payable on this account.

- 3.2 Different stones / tiles used in pattern flooring shall be measured separately as defined in the nomenclature of the item and nothing extra for laying pattern flooring shall be paid over and above the quoted rate. No additional wastage, if any, shall be accounted for any extra payment.
- 3.3 Samples of flooring stones/ Tile (Kota/ Marble/ Granite/ Ceramic tiles/ Vitrified tiles etc.) shall be deposited well in advance with the Engineer-in-Charge for approval. The sizes of stones for flooring shall be of a size not less than 600mmx600mm or as approved by Engineer-in-Charge. Approved samples should be kept at site with the Engineer-in-Charge and the same shall not be removed except with the written permission of Engineer-in-Charge. No payment whatsoever shall be made for these samples.
- 3.4 Chasing of required width and thickness shall be made in brick work at skirting location so as to flush the external surface of skirting with internal plastering. No extra payment towards making chases in brick work at skirting shall be made and the same is presumed to be inclusive of rate quoted for the item of providing and fixing skirting.
- 3.5 Proper gradient shall be given to flooring for toilets, verandah, kitchen, courtyard etc. so that the wash water flows towards the direction of floor trap. Any reverse slope if found, shall be made good by the contractor by ripping open the floor/grading concrete and nothing shall be paid for such rectifications. Slope in washrooms/toilets shall not be too steep.
- 3.6 The flooring and skirting will be executed as per pattern shown in the Architectural drawings and as per approval of Engineer-in-Charge and nothing extra shall be payable on this account. All skirting of vitrified tiles shall be of 100mm (4 inches) height unless otherwise directed by the Engineer-in-charge.

4.0 WATER PROOFING:-

- 4.1 The work shall be got executed as per CPWD or manufactures' specifications and from the specialized agency as approved by the Engineer in Charge.
- 4.2 Contractor shall also submit the names of water proofing specialist along with information about their technical capabilities and list of similar works executed by the specialized agency in the past for the approval of Engineer-in-charge.
- 4.3 Total quantity of the water proofing compound required shall be arranged only after obtaining the prior approval of the make by Engineer-in-charge in writing. It shall be ensured that the consumption of the compound is as per specified requirements.
- 4.4 The finished surface after water proofing treatment shall have adequate smooth slope as per the direction of the Engineer-in-charge.
- 4.5 Before commencement of treatment on any surface, it shall be ensured that the outlet drain pipes / spouts have been fixed and the spout openings have been chased and rounded off properly for easy flow of water.
- 4.6 The surface where the water proofing is to be done shall be thoroughly cleaned with wire brushes. All loose scales mortar splashes etc. shall be removed and dusted off. The surface shall be treated with neat cement slurry admixed with proprietary water proof compound to penetrate into crevices and fill up all the pores in the surface.

4.7 GUARANTEE BOND FOR ALL WATER PROOFING ITEMS:-

The water proofing work shall carry Five Years guarantee to be reckoned from the date of completion of the entire work under the contract against faulty workmanship, finishing, unsound materials, efficiency of water proofing treatment and other related problems.

Five Years Guarantee bond in prescribed Performa shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility about efficiency of water proofing treatment shall rest with the main contractor.

Ten percent of the cost of water proofing work shall be retained as security deposit and the amount so withheld would be released after ten years from the date of completion of the entire work under the contract, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within seven days of receipt of intimation of defects in the work. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of contractor.

However, the security deposit deducted may be released in full against bank guarantee of equivalent amount in favour of Engineer in charge, if so decided by the Engineer in charge.

The Security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

5.0 FINISHING:-

- 5.1** The work shall be done in accordance with CPWD Specifications -2019 Vol. I to Vol. II with upto date correction slips and the manufacturer's specifications where CPWD specifications are not available.

Painting on interior and exterior surfaces of building shall be done using rollers only and nothing extra shall be paid on this account.

- 5.2** The quantity of paint required as per the theoretical consumption including wastages, if any, shall be procured from the approved manufacturer or his authorized dealers and deposited with the representative of the Engineer-in-Charge at site.
- 5.3** The paint shall be obtained in smaller packing (around 20 litre).
- 5.4** The paint shall be kept in the joint custody of the Department and the Contractor and day-to-day account of receipt and issue shall be maintained. However, the safe custody and watch and ward shall remain to be the responsibility of the Contractor. Nothing extra shall be payable on this account.
- 5.5** The name of the manufacturer, manufacturer's product identification, manufacturer's mixing instructions, warnings and instructions for handling and application, toxicity and date of manufacturing and shelf life shall be clearly and legibly mentioned on the labels of each container. These details shall be kept in record. The material shall be consumed in the order of material brought to site, first come first consume basis. The Contractor shall obtain and submit to the Department the manufacturer's certificate for compliance of the various characteristics of the materials as per the manufacturer's specifications and also copy of the manufacturer's test report for the record.

- 5.6 Empty containers of the paints shall not be removed from site till the completion of the work unless otherwise permitted and shall be removed only with the permission of the Engineer-in-Charge or his authorized representative at site of work.
- 5.7 All arrangements for measuring, dosing etc. at site shall be made by the Contractor. Nothing extra shall be payable on this account.
- 5.8 The Contractor shall apply samples of each kind of paint for the approval of shade and colour as per the directions of the Engineer-in-Charge before procuring the paint in mass.
- 5.9 All incidental charges of cartage, storage, wastage, safe custody, scaffolding, cost of samples and mock ups etc. shall be borne by the Contractor and no claim, whatsoever, shall be entertained on this account.
- 5.10 Rates quoted in item of Gypsum plaster shall be deemed to be inclusive of item of providing and applying bond coat over RCC surface and providing fixing glass fibre mesh of density 80 gsm of width 300 mm over joint of different materials before application of gypsum plaster. Nothing extra, whatsoever shall be paid or entertained on this account.
- 5.11 Before taking up the finishing work such as Flooring, Plastering, sample unit of toilet, room etc., contractor shall prepare full-scale sample for large-scale repetitive items and get approved from Engineer-in-Charge before taking up for execution on large scale.
- 5.12 Based on the samples approved by the Engineer-in-Charge for various flooring and dado / cladding materials as specified hereinafter, the contractor shall prepare mock up(s) at site of work as specified under relevant flooring and dado / cladding items, for approval of quality of workmanship and material specified. If the quality of the workmanship and the material is as per the required standards and approved by the Engineer-in-Charge, the mock up shall be allowed as part of the work and measured for payment. Otherwise, it shall be dismantled by the contractor as directed by the Engineer-in-Charge and taken away from the site of the work at his own cost. The mock up(s) so made shall be kept till completion of respective works for reference. Nothing extra shall be payable on this account.
- 5.13 Work activities shall be executed in well thought out sequences such that consequent activities not adversely affecting previously done work. Nothing extra shall be payable to protect the works already done.
- 5.14 In no case, Mortar/ cement concrete shall be mixed directly on floor/ road surface. For mixing of mortar, G.I. Sheet/ Ply etc. shall be used to maintain the surface of flooring/ road. If at any instance, any worker is found, mixing mortar/ cement concrete directly on floor/ road surface, recovery of Rs. 2000/- per instance shall be made from running bill.**
- 5.15 All CP brass water supply fittings and fixtures mentioned anywhere in the agreement shall be single lever in case of mixers and quarter turn in case of rest and shall be of make and model as per the list of approved makes provided in the agreement.

5.16 All materials, T & P (other than routine T & P items), consumable and contingent articles required for the work shall be arranged by the contractor, Viz:-

5.16.1 **For civil work:** -

- a. Tool kit for every mason having 300 mm digital spirit level, water level, plumb-bob, Try square set measurement tool (Right angle 90 degree),
- b. Proper tile & stone cutter
- c. G.I. Sheet/ Ply etc. for mixing of mortar/ CC.
- d. Water jet pump with sprinkler nozzle for curing of all cement work mainly for vertical surface.
- e. Chase cutting machine
- f. Drill machine

5.17 Chases, holes & drilling works etc. shall be done using power operated tools.

5.18 **CEMENT PLASTER:**

5.18.1 **Preparation of Surface**

The joints shall be raked out properly. Dust and loose mortar shall be brushed out. Efflorescence if any shall be removed by brushing and scrapping. The surface shall then be thoroughly washed with water, cleaned and kept wet before plastering is commenced. In case of concrete surface if a chemical retarder has been applied to the form work, the surface shall be roughened by wire brushing and all the resulting dust and loose particles cleaned off and care shall be taken that none of the retarders is left on the surface.

5.18.2 **Mortar**

The mortar of the specified mix using the type of sand described in the item shall be used. It shall be as specified in Subhead 3.0. For external work and under coat work, the fine aggregate shall conform to grading IV. For finishing coat work the fine aggregate conforming to grading zone V shall be used.

5.18.3 **Application of Plaster**

Plastering shall be started from the top and worked down towards the floor. All putlog holes shall be properly filled in advance of the plastering as the scaffolding is being taken down. To ensure even thickness and a true surface, plaster about 15 × 15 cm shall be first applied, horizontally and vertically, at not more than 2 metres intervals over the entire surface to serve as gauges. The surfaces of these gauged areas shall be truly in the plane of the finished plaster surface. The mortar shall then be laid on the wall, between the gauges with trowel. The mortar shall be applied in a uniform surface slightly more than the specified thickness. This shall be brought to a true surface, by working a wooden straight edge reaching across the gauges, with small upward and side ways movements at a time. Finally the surface shall be finished off true with trowel or wooden float according as a smooth or a sandy granular texture is required. Excessive troweling or over working the float shall be avoided.

All corners, arrises, angles and junctions shall be truly vertical or horizontal as the case may be and shall be carefully finished. Rounding or chamfering corners, arrises, provision of grooves at junctions etc. where required shall be done without any extra payment. Such rounding, chamfering or grooving shall be carried out with proper templates or battens to the sizes required. When suspending work at the end of the day, the plaster shall be left, cut clean to line both horizontally and vertically. When recommencing the plastering, the edge of the old work shall be scrapped cleaned and wetted with cement slurry before plaster is applied to the adjacent areas, to enable the two to properly join together. Plastering work shall be closed at the end of the day on the body of wall and not nearer than 15 cm to any corners or arrises. It shall not be closed on the body of the features such as plasters, bands and cornices, nor at the corners of arrises. Horizontal joints in plaster work shall not also occur on parapet tops and copings as these invariably lead to leakages. The plastering and finishing shall be completed within half an hour of adding water to the dry mortar. No portion of the surface shall be left out initially to be patched up later on. The plastering and finishing shall be completed within half an hour of adding water to the dry mortar.

Thickness Where the thickness required as per description of the item is 20 mm the average thickness of the plaster shall not be less than 20 mm whether the wall treated is of brick or stone. In the case of brick work, the minimum thickness over any portion of the surface shall be not less than 15 mm while in case of stone work the minimum thickness over the bushings shall be not less than 12 mm.

5.18.4 **Curing**

Curing shall be started as soon as the plaster has hardened sufficiently not to be damaged when watered. Water jet pump with sprinkler nozzle shall be used for Curing. The plaster shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages at the contractor's expense by such means as the Engineer-in-Charge may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched

5.18.5 **Finish**

The plaster shall be finished to a true and plumb surface and to the proper degree of smoothness as required. The work shall be tested frequently as the work proceeds with a true straight edge not less than 2.5 m long and with plumb bobs. All horizontal lines and surfaces shall be tested with a level and all jambs and corners with a plumb bob as the work proceeds

5.18.6 **Precaution**

Any cracks which appear in the surface and all portions which sound hollow when tapped, or are found to be soft or otherwise defective, shall be cut out in rectangular shape and redone as directed by the Engineer-in-Charge. (i) When ceiling plaster is done, it shall be finished to chamfered edge at an angle at its junction with a suitable tool when plaster is being done. Similarly when the wall plaster is being done, it shall be kept separate from the ceiling plaster by a thin straight groove not deeper than 6 mm drawn with any suitable method with the wall while the plaster is green. (ii) To prevent surface cracks appearing between junctions of column/beam and walls, 150

mm wide chicken wire mesh should be fixed with U nails 150 mm centre to centre before plastering the junction. The plastering of walls and beam/column in one vertical plane should be carried out in one go. For providing and fixing chicken wire mesh with U nails payment shall be made separately

5.19 REPAIRS TO PLASTER

5.19.1 Cutting

The mortar of the patch, where the existing plaster has cracked, crumbled or sounds hollow when gently tapped on the surface, shall be removed. The patch shall be cut out to a square or rectangular shape at position marked on the wall as directed by the Engineer-in-Charge or his authorized representative. The edges shall be slightly under cut to provide a neat joint.

5.19.2 Preparation of Surface

The masonry joints which become exposed after removal of old plaster shall be raked out to a minimum depth of 10 mm in the case of brick work and 20 mm in the case of stone work. The raking shall be carried out uniformly with a raking tool and not with a basuli, and loose mortar dusted off. The surface shall then be thoroughly washed with water, and kept wet till plastering is commenced. In case of concrete surfaces, the same shall be thoroughly scrubbed with wire brushes after the plaster had been cut out and pock marked. The surface shall be washed and cleaned and kept wet till plastering is commenced.

5.19.3 Application of Plaster

Mortar of specified mix with the specified sand shall be used. The surface shall be finished even and flush and matching with the old surrounding plaster. All roundings necessary at junctions of walls, ceilings etc. shall be carried out in a tidy manner. All dismantled mortar & rubbish etc. shall be disposed off within 24 hours from its dismantling promptly as directed by the Engineer-in-Charge.

5.19.4 Protective Measure

Doors, windows, floors, articles of furniture etc. and such other parts of the building shall be protected from being splashed upon. Splashing and droppings, if any, shall be removed by the contractor at his own cost and the surface cleaned. Damages, if any, to furniture or fittings and fixtures shall be recoverable from the contractor.

5.19.5 Curing

Curing shall be started as soon as the plaster has hardened sufficiently not to be damaged when watered. Water jet pump with sprinkler nozzle shall be used for Curing. The plaster shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages at the contractor's expense by such means as the Engineer-in-Charge may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched.

5.20 PAINTING

Materials Paints, oils, varnishes etc. of approved brand and manufacture shall be used. Only ready mixed Paint (Exterior grade) as received from the manufacturer without any admixture shall be used. If for any reason, thinning is necessary in case of ready mixed Paint, the brand of thinner recommended by the manufacturer or as instructed

by the Engineer-in-Charge shall be used. Approved Paints, oil or varnishes shall be brought to the site of work by the contractor in their original containers in sealed condition. The material shall be brought in at a time in adequate quantities to suffice for the whole work or at least a fortnight's work. The materials shall be kept in the joint custody of the contractor and the Engineer-in -Charge. The empties shall not be removed from the site of work, till the relevant item of work has been completed and permission obtained from the Engineer-in-Charge.

5.20.1 Commencing Work

Painting shall not be started until the Engineer -in-Charge has inspected the items of work to be painted, satisfied himself about their proper quality and given his approval to commence the painting work. Painting of external surface should not be done in adverse weather condition like hail storm and dust storm. Painting, except the priming coat, shall generally be taken in hand after practically finishing all other building work. The rooms should be thoroughly swept out and the entire building cleaned up, at least one day in advance of the Paint work being started.

5.20.2 Preparation of Surface

The surface shall be thoroughly cleaned and dusted off. All rust, dirt, scales, smoke splashes, mortar droppings and grease shall be thoroughly removed before painting is started. The prepared surface shall have received the approval of the Engineer-in-Charge after inspection, before painting is commenced.

5.20.3 Application

Before pouring into smaller containers for use, the Paint shall be stirred thoroughly in its containers, when applying also, the Paint shall be continuously stirred in the smaller containers so that its consistency is kept uniform. The painting shall be laid on evenly and smoothly by means of crossing and laying off, the latter in the direction of the grains of wood. The crossing and laying off consists of covering the area over with Paint, brushing the surface hard for the first time over and then brushing alternately in opposite direction, two or three times and then finally brushing lightly in a direction at right angles to the same. In this process, no brush marks shall be left after the laying off is finished. The full process of crossing and laying off will constitute one coat.

Where so stipulated, the painting shall be done by spraying. Spray machine used may be (a) high pressure (small air aperture) type, or (b) a low pressure (large air gap) type, depending on the nature and location of work to be carried out. Skilled and experienced workmen shall be employed for this class of work. Paints used shall be brought to the requisite consistency by adding a suitable thinner.

Spraying should be done only when dry condition prevails. Each coat shall be allowed to dry out thoroughly and rubbed smooth before the next coat is applied. This should be facilitated by thorough ventilation. Each coat except the last coat, shall be lightly rubbed down with sand paper or fine pumice stone and cleaned off dust before the next coat is laid.

No left over Paint shall be put back into the stock tins. When not in use, the containers shall be kept properly closed.

No hair marks from the brush or clogging of Paint puddles in the corners of panels, angles of mouldings etc. shall be left on the work.

In painting doors and windows, the putty round the glass panes must also be painted but care must be taken to see that no Paint stains etc. are left on the glass. Tops of shutters and surfaces in similar hidden locations shall not be left out in painting. However, bottom edge of the shutters where the painting is not practically possible, need not be done nor any deduction on this account will be done but two coats of primer of approved make shall be done on the bottom edge before fixing the shutters.

On painting steel work, special care shall be taken while painting over bolts, nuts, rivets overlaps etc.

The additional specifications for primer and other coats of Paints shall be as according to the detailed CPWD specifications under the respective headings.

5.20.4 Brushes and Containers

After work, the brushes shall be completely cleaned of Paint and linseed oil by rinsing with turpentine. A brush in which Paint has dried up is ruined and shall on no account be used for painting work. The containers when not in use, shall be kept closed and free from air so that Paint does not thicken and also shall be kept safe from dust. When the Paint has been used, the containers shall be washed with turpentine and wiped dry with soft clean cloth, so that they are clean, and can be used again.

5.20.5 Precautions

All furnitures, fixtures, glazing, floors etc. shall be protected by covering and stains, smears, splashings, if any shall be removed and any damages done shall be made good by the contractor at his cost.

5.21 The contractor shall have to remove all splashes after completing the day's work. In case the splashes are not removed by the contractor the same shall be got removed by the Engineer-in-Charge and necessary recovery for the cost of removal of splashes shall be made from the contractor as below:

- a. For splashes of internal white wash/ distemper etc. Rs. 500/- per bungalow/ flat/room of office
- b. For splashes of paint marks Rs. 1000/- per bungalow/ flats/ room of office.
- c. For splashes of external white wash/ colour wash/ water proofing cement paint Rs. 500/-bungalow/ flat/ room of office.

5.22 Curing of plaster/RCC/ Brick work etc. up to all heights should be ensured with the help of water jet pressure machine such as Universal Aquatak 130 of Bosch or similar. Nothing extra shall be payable for this.

GUARANTEE BOND TO BE EXECUTED BY THE CONTRACTOR
FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF
WATER-PROOFING WORKS (All Water - Proofing Items).

The agreement made this..... day of (Two Thousand _____ only) between
.....S/o(herein after called the GUARANTOR of the one part) and the
PRESIDENT OF INDIA (hereinafter called the Government of the other part)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated and made
between the GUARANTOR OF THE ONE PART AND the Government of the other part whereby the contractor inter alia
undertook to render the building and structures in the said contract recited completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water/leak
proof for (5) **Five years** from the date of completion of work under the contract.

NOW THE GUARANTOR hereby guarantees that work executed by him will render the structures completely leak proof and
the minimum life of such water proofing treatment shall be (5) **Five years** to be reckoned from the date of completion of
work under the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof
or alteration and for such purpose:

(a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of
the same nature which might cause damage to the roof;

(b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof
whereby proofing treatment is removed in parts;

(c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

The decision of the Engineer-in-charge with regard to nature and cause of defect shall be final and binding on Guarantor.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect being found render the
building water proof to the satisfaction of the Engineer-In-Charge calling upon him to rectify the defects failing which the
work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the
Engineer-in-charge as to the cost payable by the Guarantor shall be final and binding.

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

IN WITNESS WHEREOF these presents have been executed by the obligator and
by for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:-

1. 2.

SIGNED FOR AND BEHALF OF THE PRESIDENT OF INDIA BY in the presence of:-

1. 2.

LIST SHOWING PREFERRED BRANDS/ MANUFACTURERS/MAKES

NOTE: -

- 1) A List of Preferred Brand Names of Various Materials / Products are shown below for usage in execution of Work. However, Approved equivalent material of any other Specialized Companies / Firms may also be used, in case it is established that the Brands Specified below are not available in the market and subject to Approval of the alternate Brand by the Engineer In charge.
- 2) The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material or engaging any of the specialized agencies. The Contractor shall make a detailed submittal with catalogues and highlighted proposed specifications, as well as full details of the works executed by the specialized agency, as specified.
- 3) Unless otherwise specified, the brand/make of the material as specified in the item nomenclature, in the particular specifications and in the list of approved materials attached in the tender, shall be used in the work.
- 4) It must be ensured, in general, that all materials to be used in the works shall bear BIS Certification mark. In cases where for a particular material/product, BIS Certification Mark is not available, then the material proposed to be procured can be used subject to the condition that it should conform to CPWD Specifications and relevant BIS codes. In such cases written approval of the Engineer-in -Charge shall be obtained before use of such material in their works.
- 5) The list given below does not absolve the Executing Agency from their responsibility for using these products. It is only after, they are satisfied about the quality and performance, and the products shall be used. To achieve this, proper check on the quality of the product, actually to be used, should be exercised.
- 6) The below list is provisional and subject to product conformity of standards of relevant codes.
- 7) The Engineer-in-charge reserves the right to add or delete any materials and brands in the list of approved makes.
- 8) For Important items of work as decided by the Engineer-in-charge, the contractor shall provide minimum three samples of three different makes for each item of work as per the list of approved makes for the approval of engineer-in-charge. It shall be the discretion of Engineer-in-charge to approve any of the three samples to be submitted by the contractor and decision of engineer-in-charge in this regard shall be final and binding and nothing extra, whatsoever, shall be admissible on this ground.

List of Approved materials for (Civil)

SI No	DETAILS OF MATERIALS	MANUFACTURERS/MODEL/MAKE NAME
	<u>CONCRETE/RCC WORK</u>	
1	CEMENT [ORDINARY PORTLAND CEMENT 43 GRADE AND CEMENT (P.P.C.)]	ACC, AMBUJA, ULTRATECH, JK CEMENT, BIRLA
2	READY MIXED CEMENT CONCRETE	ACC, ULTRA TECH, NDCON, SHRI RAM RMC, VK RMC
3	WHITE CEMENT	BIRLA WHITE, J.K. WHITE, ULTRA TECH
4	ADMIXTURES FOR PCC/RCC/MORTAR	FOSROC, SIKKA, BASF, MAPEI
5	CURING COMPOUND	FOSROC, SIKKA, CICO, BASF
	<u>STEEL WORK</u>	
6	STEEL (TMT FE-500D or OTHER GRADE)	TATA STEEL LTD., RINL, JINDAL STEEL & POWER LTD, JSW STEEL LTD, SAIL.
7	STRUCTURAL STEEL SECTIONS INCLUDING HOLLOW SECTIONS	TATA, JINDAL STEEL & POWER LTD, APL APOLLO, RINL, SAIL
8	STEEL SECTION FOR DOOR/ WINDOW FRAME.	TATA, JINDAL STEEL & POWER LTD, APL APOLLO
9	PEB FABRICATORS	EVEREST, KAMDHENU BUILDTEC, INTERARCH, KIRBY
10	HIGH STRENGTH NUT/BOLT GRADE 8.8/10.9	SUPREME FASTENERS, VFL FASTENERS, UNBRAKO
11	WELDING RODS	ADVANI, ESAB, ADOR
12	DASH, ANCHORING FASTENERS	HILTI, FISCHER, BOSCH, WUERTH
13	STEEL DECK SHEET	JSW, TATA BLUESCOPE, JSPL
	<u>MASONRY WORK</u>	
14	AAC BLOCK ADHESIVE	WEBER (WEBERWALL JOINSBOND), ULTRATECH (XTRALITE), MYK LATICRETE, FERROUSCRETE
15	AAC BLOCKS	ULTRATECH, MAGICRETE, R.S. GREEN, AEROCON, FERROUSCRETE, JK
16	STONE ADHESIVE	ARDEX ENDURA, WEBER, MYK LATICRETE, FERROUSCRETE
17	STONE SURFACE SEALER/IMPREGNATION & CLEANING AGENTS	ARDEX ENDURA, WEBER, MYK LATICRETE, MAPEI
18	POLYMER MODIFIED/READY MIX MORTAR/ MICRO CONCRETE	SIKA, FOSROC, MYK ARMENT, ULTRATECH, WEBER, FERROUSCRETE
19	GRC JALI	UNISTONE, BIRLA WHITE, DALAL
	<u>WOOD, PVC WORK, JOINERIES</u>	
20	FRP DOOR/CHAJJA	FIBERWAYS, FIBER ENGINEER, SELECTED DOOR CO., FIBER TECHNO PRODUCTS
21	S.S. WIRE MESH	STERLING ENTERPRISES, TRIMURTY WELDED MESH, TIGER BRAND, GRAND METAL CORPORATION
22	FACTORY HOT PRESSED LAMINATED/FACTORY VENEERED POLISHED DOOR	GREEN, DURO, CENTURY, GREENLAM, GREENPANEL, MERINO, SHAKTI HORMANN
23	FLUSH DOOR SHUTTER	GREEN, DURO, CENTURY, GREENLAM, GREENPANEL, MERINO, SHAKTI HORMANN
24	VENEERED/LAMINATED PARTICLE BOARD/MDF/HDF/HDHMR BOARD	GREEN, GREENLAM, GREENPANEL, CENTURY, MERINO, ARCHIDPLY, ACTION TESA

25	BLOCK BOARD, PLYWOOD (PINE BOARD)	GREEN, DURO, CENTURY, MERINO, ARCHIDPLY, BHUTAN TUFF
26	LAMINATE/HPL/COMPACT LAMINATE	SKYDECOR, GREENLAM, CENTURY, MERINO
27	VENEER PLY/TEAK PLY	SKYDECOR, CENTURY, DURO, GREEN, GREEN LAM, GREEN PANEL, MERINO, ARCHIDPLY, BHUTAN TUFF
28	SS 304/316, BRASS HARDWARE/FITTINGS/ JOINERIES FOR DOOR/ WINDOWS/WARDROBES	DORMA, HAFELE, DORSET, GODREJ, KICH, HETTICH, OZONE
29	HYDRAULIC DOOR CLOSER, FLOOR SPRING, AUTOMATIC SLIDING DOOR SYSTEM AND FITTINGS	DORMA, HAFELE, DORSET, GODREJ, KICH, HETTICH, OZONE
30	WOOD ADHESIVE	FEVICOL, 3M, SIKA
31	MIRROR	ATUL, MODIGUARD, GOLDEN FISH, SAINT GOBAIN
32	FIRE CHECK DOOR	SHAKTI HORMANN, PACIFIC, SUKRI, TATA PRAVESH, BHAWANI FIRE, PYROTECH, SAINT GOBAIN
33	FIRE RESISTANT (WIRED/INTUMESCENT GEL) GLASS	SAINT GOBAIN, AIS PYROBEL, SCHOTT, PYROGUARD
34	DOOR FITTINGS & HARDWARE FOR FIRE CHECK DOORS DOORS- DOOR CLOSER, PANIC BAR, PANIC TRIM, HINGES, MORTISE DEAD LOCK, HANDLE, FLUSH BOLT ETC.	DORMA, HEFELE, GEZE, HORMANN
35	UPVC WINDOWS/DOORS	FENESTA, SAINT-GOBAIN, VEKA, KOMMERLING,
36	GI HOLLOW METAL DOOR FRAME	SHAKTI HORMANN, SIGNUM, MPP, NAVAIR, TATA PRAVESH
37	TOILET CUBICLES	GREENLAM, FUNDERMAX, DORMA, MERINO
38	ACRYLIC SOLID SURFACE	LG HI-MACS, DUPONT CORION, NEONNEX, LUXOR (DURLAX)
39	VENETIAN/HONEYCOMB/ROLLER BLINDS & CURTAIN TRACKS, DRAPERY RODS	MAC, VISTA, DECK, HUNTER DOUGLAS, D'DÉCOR
40	WPC BOARD /DOORS /FRAMES	ALSTONE, RAJSHRI, GREENPLY, CENTURY, AMULYA
41	STAINLESS STEEL TELESCOPIC CHANNELS/ HINGES	DORMA, HAFELE, DORSET, GODREJ, KICH, HETTICH, OZONE
	<u>FLOORING</u>	
42	VITRIFIED TILES/ CERAMIC TILES	KAJARIA , RAK, RESTILE, SOMANY
43	COMPOSITE MARBLE/QUARTZ STONE	JOHNSON, KALINGA
44	CC CHEQUERED/TACTILE TILES	JOHNSON, RESTILE, KAJARIA, UNISTONE, SOMANY, MODERN
45	TILE ADHESIVE, EPOXY/CEMENTITIOUS TILE GROUT	ARDEX ENDURA, WEBER, MYK LATICRETE, MAPEI,CHRYSO (SAINT GOBAIN), FERROUSCRETE
46	POLYSULPHIDE SEALANT	BASF, FOSROC, SIKA, MAPEI, ARDEX ENDURA, PIDILITE, CHRYSO (SAINT GOBAIN), FERROUSCRETE, MYK ARMENT
47	WOODEN FLOORING	ARMSTRONG, PERGO, MIKASA (GREENLAM), PARADOR (HIL), JUNCKERS, VISTA
48	RAISED/ FALSE ACCESS FLOORING SYSTEM	UNITILE, LINDNER, UNIFLOOR, TANKARIA, TATE ACCESS FLOOR SYSTEMS
49	FROSTED FILM	LG, 3M, GARWARE, DUPONT
	<u>ROOFING</u>	
50	GYPSUM BOARD	INDIA GYPSUM, LAFARGE, BORAL, GYPROC
51	CALCIUM SILICATE TILES/BOARD FALSE CEILING & FRAMING	AEROLITE, SAINT GOBAIN, HILUX, USG BORAL
52	MINERAL FIBRE/ GRG FALSE CEILING	ARMSTRONG, GYPROC, AEROLITE, USG BORAL, DIAMOND CEILINGS
53	TUBULAR & METAL FALSE CEILING, ALUMINIUM BAFFLE	HUNTER DUGLUS, ARMSTRONG, LINDNER, DURLUM
54	WOODEN FALSE CEILING	ARMSTRONG, ANUTONE, ECOPHONE, EPITOME

55	DRY WALL SYSTEM-BOARD AND FRAMING	USG BORAL, GYPROC, EVEREST
56	FALSE CEILING- GYPSUM BOARD/TILES	GYPROC, LAFARAGE ,INDIA GYPSUM, USG BORAL
57	CEMENT FIBRE BOARDS	EVEREST, BRILA AEROCON, VISHAKHA, CENTURY (Zykron), SAINT GOBAIN
58	PUF PANEL	LLOYD, JINDAL, TATA
	<u>FINISHING</u>	
59	WATER-PROOF CEMENT PAINT	SNOWCEM, ASIAN, ICI.
60	SYNTHETIC ENAMEL PAINT	ASIAN (APCOLITE PREMIUM GLOSS/SATIN ENAMEL), ICI (DULUX GLOSS/SATIN), KANSAI NEROLAC (SYNTHETIC ENAMEL HI GLOSS/SATIN ENAMEL SMOOTH FINISH), BERGER (LUXOL HIGH GLOSS/SATIN)
61	PLASTIC/ACRYLIC EMULSION PAINT	ICI (DULUX VELVET TOUCH/ PEARL GO), NEROLAC (IMPRESSIONS KASHMIR), ASIAN PAINTS (APCOLITE ALL PROTEK)
62	OIL BOUND DISTEMPER/ACRYLIC WASHABLE DISTEMPER	ASIAN PAINTS (TRACTOR AQUALOCK), ICI (DULUX PROMISE INTERIOR), NEROLAC (BEAUTY ACRYLIC DISTEMPER)
63	EPOXY/PU PAINT	ASIAN, ICI, KANSAI NEROLAC
64	TEXTURED EXTERIOR PAINT	BERGER (FLORENTINA SAND STONE), ASIAN (RUSTIC TEXTURE), DULUX (WEATHERSHIELD SIGNATURE), JK MAXX PAINTS, LUXTURE
65	EXTERIOR EMULSION/PAINT	ASIAN (APEX ULTIMA PROTEK), ICI (DULUX WEATHERSHIELD MAX), NEROLAC (EXCEL TOTAL)
66	PRIMER	NEROLAC (PREMIUM PRIMER), ASIAN (TRUCARE SPARC), ICI DULUX (PROMISE PRIMER)
67	EXTERIOR WATERPROOFING PAINT	ASIAN, ICI, NEROLAC
68	ANTI BACTERIAL PAINT	ASIAN, ICI, NEROLAC, BERGER
69	MELAMINE & PU POLISH	ASIAN, ICI, NEROLAC, BERGER
70	GYPSUM PLASTER	GYPROC (ELITE-90), ULTRA TECH, USG BORAL, BIRLA WHITE
71	WALL PUTTY	JK , BIRLA, ASIAN PAINTS, FERROUSCRETE
72	POWDER COATING	AKZO NOBEL, JOTUN, JENSON& NICHOLSON
73	BITUMASTIC PAINT	BERGER, SHALIMAR, NEROLAC, ASIAN
	<u>ROAD WORK</u>	
74	CC/SFRC PRECAST DRAIN COVER/KERB STONE/CHANNEL	KK, NITCO, DALAL TILES, CHELSEA, PAVECON, KJS CONCRETE, UNISTONE
75	CC PAVERS/ GRASS PAVER	NITCO, UNISTONE, ULTRA TILES, KJS CONCRETE, PAVECON, CHELSEA
76	THERMOPLASTIC PAINT/ROAD MARKING PAINT	NEROLAC, ASIAN, SHALIMAR, BERGER, STP LTD
	<u>WATER SUPPLY & FITTINGS</u>	
77	C.P. BRASS FAUCETS, FITTINGS FOR TOILETS I/C WELLNESS PRODUCTS AND ACCESSORIES LIKE TOWEL ROD, TOILET PAPER HOLDER, ROB HOOK, SOAP DISH HOLDER, LIQUID SOAP CONTAINER ETC	JAQUAR, KOHLER, GROHE, EURONICS , KEROVIT
78	PTMT FITTINGS	PRAYAG, POLYTUF, PRIMA, SUPREME
79	SS PIPES & FITTINGS FOR WATER SUPPLY	JINDAL, VIEGA, J PRESS
80	G. I. PIPES	TATA, JINDAL HISAR, SAIL, PRAKASH SURYA
81	G. I. FITTINGS	UNIK, ICS, KS
82	DI PIPES & FITTINGS	KESORAM, ELECTROSTEEL, TATA
83	BRASS/GUNMETAL- ALL/GATE/GLOBE/ NRV/FOOT/PRV- VALVES	LEADER, SANT, ZOLOTO, KIRLOSKAR

84	CI-BUTTERFLY/SUICE/NRV/FOOT/AIR RELEASE-VALVES	LEADER, SANT, ZOLOTO, KIRLOSKAR
85	FLOAT VALVE (BALL TYPE)	PRAYAG, LEADER, ZOLOTO, IBP, ARCO
86	SMC/GRP TANKS	AMITEX, DEVI, POLYMERS, SINTEX
87	FORGED STEEL FITTINGS/FLANGES	JOHNSON, VS FORGE, JK FORGING, TRUE FORGE, INDUS, MEC (JAINSONS)
88	PIPE HANGERS/SUPPORTS/CLAMPS	HILTI, FISCHER, EUROCLAMP, GMGR, NECO, EASYFLEX, WUERTH
89	MS PIPES	JINDAL HISAR, TATA, SURYA
90	C.I./D.I. MANHOLES COVERS, GRATINGS	BIC, RIF, NECO, ACO
91	PVC WATER STORAGE TANKS	SINTEX, SHEETAL, SUPREME, POLYPLAST
92	CPVC/ UPVC PIPES & FITTINGS	ASHIRWAD, FINOLEX, SUPREME, ASTRAL
	<u>SANITARY INSTALLATIONS</u>	
93	VITREOUS CHINA SANITARYWARE	KOHLER, JAQUAR, GROHE, HINDWARE, EURONICS, CERA
94	STAINLESS STEEL SINKS	NILKANTH, NIRALI, ROCA, HAFELE
95	EXPOSED PVC CISTERN	KOHLER, GROHE, JAQUAR, HINDWARE, EURONICS, CERA
96	CENTRIFUGAL CAST (SPUN) IRON (S&S) / HUBLESS PIPES AND FITTINGS	SKF, NECO, BIC, SAINT GOBAIN, RPMF (Raj Pattern Makers & Founders)
97	CENTRIFUGALLY CAST (SPUN) IRON PIPES (CLASS LA)	SKF, NECO, BIC, SAINT GOBAIN, RPMF (Raj Pattern Makers & Founders)
98	C.P. BRASS FITTINGS (ALL)	JAQUAR, KOHLER, GROHE, EURONICS, KEROVIT
99	C.P. BRASS BOTTLE TRAP	JAQUAR, KOHLER, GROHE, EURONICS, KEROVIT
100	SN8/HDPE PIPES AND FITTINGS	ASHIRWAD, GEBERIT, SUPREME, ASTRAL
101	STONEWARE PIPES & GULLY TRAPS	PERFECT, TAYA, PARRY, BURN, ANAND, HIND
102	RCC PIPES	LAKSHMI, SOOD & SOOD, JAIN & CO, PRAGATI CONCRETE, KK, USHA, DIWAN SPUN PIPE
103	PVC PIPES	REX POLYEXTRUSION, SUPREME, AKASH, ZENPLAS
104	CI/PLASTIC ENCAPSULATED/PLAIN FOOT REST	KK INDIA, KGM, ACCURATE BUILDCON, NECO
	<u>ALUMINIUM</u>	
105	ALUMINIUM HARDWARE FITTINGS FOR ALUMINIUM WINDOWS & DOORS, FRICTION STAY HINGES	ALUALPHA, GEZE, ROTO, DR HANN, SECURISTYLE, STAC, SCHUCO, PEGO, INSTA
106	ALUMINIUM EXTRUDED SECTIONS FOR DOORS & WINDOWS ETC.	JINDAL, HINDALCO, BHORUKA, NALCO
107	ALUMINIUM WINDOWS/DOORS FABRICATORS (FACTORY MADE)	KALCO, SHANKAR FENESTRATIONS & GLASS (PABROS), HINDALCO, FENESTA, DOWIN
108	ALUMINIUM GLASS PARTITION SYSTEM	DORMAKABA, LINDNER, KUBIK, BOTTOMLINE, KALCO
109	EPDM GASKET	HANU, ANAND, ALP, MONA
110	SILICON GASKET	KICH, HAFELE, JAQUAR, GODREJ, SAINT GOBAIN
111	FLOAT GLASS	MODIGUARD, SAINT GOBAIN, ASAHI
112	ALUMINUM COMPOSITE PANELS	ALUTECH, ALUCOBOND, ALUDECOR, ALSTONE, REYNOARCH
113	REFLECTIVE GLASS	SAINT GOBAIN, ASAHI (INDIA), PILKINGTON, GUARDIAN
114	LOOKING GLASS / MIRROR	ATUL, MODI GUARD, GOLDEN FISH, SAINT GOBAIN
115	ADHESIVE TAPE/STRUCTURAL SEALANT TAPE	NORTON, 3M, PENTA GUN
116	SILICON SEALANT	GE MOMENTIVE, DOW CORNING, WACKER, MAPEI, MC-BAUCHEMIE
117	ROCK WOOL/GLASS WOOL	U.P TWIGA, ROCK WOOL INDIA LTD., LLYOD LTD., ROXUL ROCKWOOL INDIA
	<u>WATER PROOFING</u>	
118	PVC WATER STOP/ SWELLABLE WATER BAR	SIKA, FOSROC, PENETRON, BASF

119	PU/EPOXY/CEMENTITIOUS GROUTING COMPOUND	LATICRETE, WEBER, MAPEI, SIKA, FOSROC
120	HIGH PERFORMANCE EPOXY BASED RESIN ANCHOR SYSTEM	FOSROC, FISHER, HILTI, WUERTH
121	EPOXY MORTAR/PUTTY	FOSROC, SIKA, BASF, LATICRETE, MAPEI, ARDEX ENDURA
122	SILICONE REPELLENT COATING	FAIRMATE, WACKER, WEBER, LATICRETE, MAPEI, ZYDEX
123	CRYSTALLINE WATER PROFFING COMPOUND (At their recommended doses)	XYPEX, PENETRONE, KRYTON
124	LIQUID APPLIED PU/POLYUREA, HYBRID POLYUREA/ELASTOMERIC WATER PROOFING MEMBRANE (1 COMPONENT/2 COMPONENT)	SIKA, FOSROC, BASF, MAPEI, PIDILITE
125	HDPE/PVC BASED DRAINAGE BOARD	DANODRAIN, SIKA, FOSROC, BASF
126	HDPE WATERPROOFING MEMBRANE	SIKA, FOSROC, BASF, MAPEI, GRACE
127	APP/PVC/SBR BITUTHENE/BITUMINOUS MEMBRANES (INCLUDING SELF ADHESIVE TYPE)	FOSROC, SIKA, BASF, STP, GRACE, PIDILITE, MAKPHALT
128	PU/EPOXY SEALANT FOR CRACKS	SIKA, FOSROC, BASF, MYK ARMENT, MAPEI, WEBER, CHRYSO (SAINT GOBAIN)



Schedule of Quantity

**Name of Work:- Upgradation various type of qtrs.. at Sector-1, RK Puram, New Delhi during 2026-27
(SH:- Replacement of damaged CI pipe and choked sewer line pipe)**

S.No	Description	Qty	Unit	Rate i/c GST @0.973 & 4.03% C.I.	Amount
1	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:				
1.1	All kinds of soil				
1.1.1	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	100	metre	356.45	35645.00
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level				
2.1	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)	15	cum	7974.71	119621.00
3	Making plinth protection 50 mm thick of cement concrete 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) over 75 mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	500	sqm	758.45	379225.00
4	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :				
4.1	75 to 80 mm dia pipe	300	metre	76.62	22986.00
4.2	100 mm dia pipe	300	metre	78.95	23685.00
5	Providing and fixing soil, waste and vent pipes :				
5.1	100 mm dia				
5.1.1	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	330	metre	1195.17	394406.00
5.2	75 mm diameter :				
5.2.1	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	330	metre	1200.48	396158.00
6	Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :				
6.1	75 mm dia pipe	220	each	170.25	37455.00
6.2	100 mm dia pipe	440	each	200.57	88251.00
7	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
7.1	100 mm dia				
7.1.1	Sand cast iron S&S as per IS - 3989	80	each	713.81	57105.00
7.2	75 mm dia				
7.2.1	Sand cast iron S&S as per IS- 3989	80	each	529.18	42334.00
8	Providing and fixing plain bend of required degree.				
8.1	100 mm dia				
8.1.1	Sand cast iron S&S as per IS : 3989	80	each	577.01	46161.00
8.2	75 mm dia				
8.2.1	Sand cast iron S&S as per IS - 3989	80	each	395.27	31622.00

9	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :				
9.1	100x100x100x100 mm				
9.1.1	Sand cast iron S&S as per IS - 3989	80	each	1116.57	89326.00
9.2	75x75x75x75 mm				
9.2.1	Sand cast iron S&S as per IS - 3989	80	each	896.41	71713.00
10	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
10.1	100x100x100 mm				
10.1.1	Sand cast iron S&S as per IS - 3989	80	each	937.00	74960.00
10.2	75x75x75 mm				
10.2.1	Sand cast iron S&S as per IS - 3989	80	each	673.17	53854.00
11	Providing and fixing terminal guard :				
11.1	100 mm				
11.1.1	Sand cast iron S&S as per IS - 3989	80	each	512.18	40974.00
11.2	75 mm				
11.2.1	Sand cast iron S&S as per IS - 3989	80	each	409.69	32775.00
12	Providing and fixing collar :				
12.1	100 mm				
12.1.1	Sand cast iron S&S as per IS - 3989	80	each	519.42	41554.00
12.2	75 mm				
12.2.1	Sand cast iron S&S as per IS - 3989	80	each	366.47	29318.00
13	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
13.1	100 mm inlet and 100 mm outlet				
13.1.1	Sand cast iron S&S as per IS: 3989	50	each	2020.88	101044.00
13.2	100 mm inlet and 75 mm outlet				
13.2.1	Sand Cast Iron S&S as per IS- 1729	100	each	1577.38	157738.00
14	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				
14.1	150 mm diameter	100	metre	704.30	70430.00
15	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
15.1	150 mm diameter S.W. pipe	100	metre	1194.26	119426.00
16	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				
16.1	100x100 mm size P type				
16.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	40	each	2740.72	109629.00

17	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 :				
17.1	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) :				
17.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	10	each	12926.50	129265.00
18	Deduct for taking away of SCI pipe and fitting centrifugally cast (spun) iron pipes and fittings, CI flushing cistern, GI pipes and fittings, steel doors, window, ventilators, grill round or steel bars etc. and the like received from this dismantling. The material so received shall be the property of contractor after dismantling duly weight measured before removing from the site in the presence of Engineer in Charge or his authorized representative all complete. (Note: Contractor's General rebate, if any, shall not be applicable on this item).	2100	Kg	-30.00	-63000.00

Total 2733660.00

वरिष्ठ नक्शानवीस
Senior Draughtsman

सहायक अभियंता (यो0)
Assistant Engineer (P)

कार्यपालक अभियंता
Executive Engineer
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CPWD