



**Government of India
Central Public Works Department**

NOTICE INVITING TENDER

NIT No.: 09/EE/Navi Mumbai-II/2026-27

Name of Work: Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.	
Composite Estimated Cost	For Civil Component: Rs. 57,89,065/-
	Total: Rs. 57,89,065/-
Earnest Money	Rs. 1,15,781/-
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.
Security Deposit	2.5 % of tendered value.
Time Allowed	06 (Six) Months

**Office of Executive Engineer (C)-Navi Mumbai-II,
CPWD, CGO complex, Navi Mumbai
(MAHARASHTRA).**

Tele phone No: -022 – 20870519

Email: - mumee-rbipd@cpwd.gov.in

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GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
Office of Superintending Engineer, Mumbai-II, CPWD, Mumbai-86

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It is certified that this N.I.T. contains Four parts i.e. Part-A, Part-B, Part-C and Part-D containing page Nos.: **01 to 180**

NIT No. 09/EE/Navi Mumbai-II/2026-27 is approved for Rs. 57,89,065/- (Rupees Fifty Seven Lakh Eighty Nine Thousand Sixty Five Only)

**Assistant Engineer-III,
O/o EE, Navi Mumbai-II,
CPWD, Navi Mumbai**

**Assistant Engineer (P)
O/o EE, Navi Mumbai-II,
CPWD, Navi Mumbai**

**Executive Engineer,
Navi Mumbai-II,
CPWD, Navi Mumbai**

PART -A

PRESS NOTICE

CENTRAL PUBLIC WORKS DEPARTMENT

NOTICE INVITING e-TENDERS

Executive Engineer, EE(C)-Navi Mumbai-II, CPWD, 7th Floor, C.G.O. Building, CBD Belapur, Navi Mumbai-400614(Ph. No. **022 -20870519** Email ID: **mumee-rbipd@cpwd.gov.in**) on behalf of President of India, invites online percentage rate bids on single bid system from appropriate CPWD enlisted contractors of appropriate class in B&R category for the following work.

NIT No: 09/EE/Navi Mumbai-II/2026-27

Name of Work: Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.

Estimated Cost: Rs. 57,89,065/-

Earnest Money: Rs. 1,15,781/-

Period of completion: 06 (Six) Months

Last time & date of submission of Bid: Up to 03.00PM on 11/09/2026

The tender forms and other details can be obtained from the website ***<https://etender.cpwd.gov.in>*** or ***www.cpwd.gov.in***. The Press Notice is also available on ***www.eprocure.gov.in***

Note: - Applicants are advised to keep visiting the above-mentioned web-sites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updated thereof, if any. An incomplete application may be liable for rejection.

(* To be filled by Executive Engineer)

CHECKLIST FOR CONTRACTOR FOR SUBMISSION OF BID

1. The bidder should read all the instructions, terms & conditions, contract clauses, nomenclature of items, specifications etc. contained in the tender documents very carefully, before quoting the rates. The Bidders should also read the CPWD General Conditions of Contract 2023 for Maintenance work (with correction slips up to last date of submission of tender) which will be part of the agreement.
2. The bidder should inspect the site/location before quoting the rates.
3. The agency shall quote the rate for complete scope of work in both words and figures.
4. The contractor shall quote his rates keeping in mind the scope of work, time line, specifications, terms & conditions, additional conditions and special conditions etc. and nothing shall be payable extra whatsoever unless otherwise specified.
5. The contractor shall also furnish Performance Guarantee of (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 in addition to the other deposits mentioned elsewhere in the contract for proper performance of the agreement. The Performance Guarantee shall be in the shape of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee including e-Bank guarantee given in Annexure enclosed.
6. The tender, which is not duly signed by authorized signatory or is conditional shall be treated as non-responsive and shall be summarily rejected. It must be signed on his behalf by a person holding a power of attorney authorizing him to do so. Such power of attorney should be produced with the tender and it must be disclosed that the firm is duly registered under the Indian partnership act, 1952.
7. GST/other taxes as applicable shall be paid by the contractor himself. Amount quoted by the bidder shall be inclusive of all taxes & nothing extra shall be payable. The department shall deduct the mandatory deductions at source from the R.A. bills as applicable. However, for statutory deduction of income tax & GST, necessary TDS certificate shall be given by department. The contractor shall quote his rates considering all such deductions.
8. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose EMD deposited with any division office of CPWD, anywhere in India and other documents scanned and uploaded are found in order.
9. The existing enlisted contractor either himself or his authorized representative shall take ERP (Enterprise Resources Planning) training and certificate to be uploaded. Certificate is issued through LMS (learning management system) of ERP of CPWD. For non-enlisted contractor, within 2 months from the date of issue of intent letter shall take ERP training from ERP Unit of CPWD. Training will be valid when registered in LMS of ERP and certificate is issued through LMS of ERP. Failure to do so, a recovery of Rs. 10,000 /- per week shall be made from the R/A Bill without giving any Show Cause Notice in this regard.

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

Executive Engineer, EE(C)-Navi Mumbai-II, CPWD, 7th Floor, C.G.O. Building, CBD Belapur, Navi Mumbai-400614(Ph. No. 022-20870519Email ID: mumee-rbipd@cpwd.gov.in and eerbipd@gmail.com on behalf of President of India, invites online percentage rate bids on single bid system from CPWD enlisted contractors of appropriate class in B & R category for the following work.

S. No.	NIT No.	Name of work and location	Estimated cost put to tender	Earnest Money	Stipulated Period of completion of work(in month)	Last date of online submission of bid, copy of receipt of deposition of original EMD and other documents as specified in the bid document	Time & date of Opening of bid
1	09/EE/Navi Mumbai-II/2026-27	Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.	Rs. 57,89,065/-	Rs. 1,15,781/-	06 (Six) Months	* Up to 3.00 pm on 11/09/2026	*At 3.30 pm on 11/09/2026

(* To be filled by Executive Engineer)

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen in the office of EE, Navi Mumbai-II, CPWD, Navi Mumbai during the office hours on all working days 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 Commercial Bank towards EMD in favor of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/AE), CPWD and other documents as specified.
5. Those contractors who are not registered or have not update 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 bidder should download and install the e-Msigner 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 bid opening process. After opening of bids he will receive the competitor bid sheets.
8. Contractor can upload documents in the form of JPG format and PDF format
9. Contractor must ensure to quote rate in the prescribed column(s) meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue.
In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
However, if a tenderer 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.
10. 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, nature of work to be executed, local persons involvement 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 cost consequent on any misunderstanding or otherwise shall be allowed.

11. The bidders 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. GST applicable as per Government norms up to date and future circulars. Contractor should quote the rate including GST as per Govt. norms, nothing to be reimbursed against GST directly.
13. This work requires engaging more than 20 no of labourer's / workers and therefore all necessary licenses such as labour license, EPFO and ESIC, BOCW welfare registration etc., shall be taken by contractor within the time limit prescribed under clause-1 of schedule-F.
14. The tenderer must associate with himself, agencies of the appropriate eligibility to tender for each of specialized nature of items / work listed below individually. Such works shall be got executed only through associated agencies specialized in these fields. The tenderer whose tender is accepted shall indicate the name(s) of his associated specialized agencies those fulfilling the eligibility criteria laid down below after award of work and at least 30 days before commencement of such items / work for the approval of the Engineer-in-Charge of that component, whose decision shall be final and binding. If the tenderer, himself fulfills the eligibility criteria laid down below for associated specialized agencies, then the tenderer shall not require to associate with himself the associated specialized agency.

15. List of Documents to be scanned and uploaded within the period of bid submission:

- i. Scan copy of Insurance Surety Bond, Demand Draft/ Account Payee Banker's Cheque / FDR/ Bank Guarantee including e-Bank guarantee of any commercial Bank against EMD.
- ii. Enlistment Order of the Contractor in appropriate class of **B & R** category in CPWD.
- iii. 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 undertaking along with bid documents. **(Annexure-II)**

“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”.

- iv. Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD (**including NIT issuing EE**). The EMD receiving Executive

Engineer(**including NIT issuing EE**) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format, up loaded by tender inviting EE in the NIT (**Form ‘F’**) (**Annexure-I**)

- v. ERP training certificate issued through LMS of ERP taken by himself or his authorized representative. Training will be valid only when participant is registered with LMS (Learning Management System).
16. a) 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 entertained as lowest tenderer.
- b) It is mandatory to upload scanned copies of all the documents including GST registration. If documents are not uploaded, then bid will become invalid and shall summarily be rejected.
- c) Please read para – 8 of CPWD-6 for further details.
17. Tenders with any condition including that of conditional rebates shall be rejected forthwith.
18. The Department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criteria.

Executive Engineer (C)
Navi Mumbai-II,
CPWD, Navi Mumbai

(Annexure-I)

RECEIPT OF DEPOSITION OF ORIGINAL EMD

(Receipt No. / date)

Name of Work: Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.

1. NIT No: 09/EE/Navi Mumbai-II/2026-27
2. Estimated Cost: Rs. 57,89,065/-
3. Earnest Money: Rs. 1,15,781/-
4. Last date & Time of submission of Bid: Up to 03:00 PM on **11/09/2026**

{EMD shall be drawn in favour of "The Executive Engineer(E), MCED-V, CPWD, Navi Mumbai"} }**(* To be filled by NIT approving authority/ EE at the time of issue of NIT and uploaded along with NIT)**

Name of Contractor:#.....

1. Form of EMD#.....
2. Amount of Earnest Money Deposit#.....
3. Date of submission of EMD#.....

.....

Signature, Name and Designation of EMD
Receiving officer (EE/AE (P)/AE/AAO) along with Officer Stamp

To be filled by EMD receiving EE

(Annexure-II)

**UNDERTAKING REGARDING GST REGISTRATION IN THE STATE OF
MAHARASHTRA**

**To,
Executive Engineer,
Navi Mumbai-II, CPWD,
Navi Mumbai.**

**Subject: - Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar
Ghatkopar (East), Mumbai.**

Sir,

Having examined the details given in press notice and bid document for the above work,
I/We hereby submit the following.

“If work is awarded to me, I/We shall obtain GST registration certificate of the state, in which work is to be taken up, 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”.

Seal of bidder.

Date of submission

Signature(s) of bidder(s)

CPWD-6 FOR e-Tendering

Online Percentage rate bids are invited on behalf of President of India on single bid system from appropriate CPWD enlisted contractors of appropriate class in B & R category for the work of: **Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.**

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

The work is estimated to cost: **Rs. 57,89,065/-** This estimate, however, is given merely as a rough guide.

1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids. For composite bid, besides indicating the combined estimated cost put to bid, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

1. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** which is available as a Govt. of India Publication and also available on website. www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
2. The time allowed for carrying out the work will be **06 (Six) Months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
3. (i) The site for the work is available.

OR

~~The site for the work shall be made available in parts as specified below~~

~~..... *~~

~~(ii) The architectural and structural drawings for the work are available.~~

4. The architectural and structural drawings shall be made available in phased manner, as per requirement of the same as per approved programme of completion submitted by the contractor after award of the work. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.

(* To be filled by Executive Engineer)

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. 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 Bank's shall be drawn in favour of **"The Executive Engineer(E), MCED-V, CPWD, Navi Mumbai"** shall be scanned and uploaded to the e-tendering website within the period of the bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving EE/~~AE~~ shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee including e-bank guarantee also. In such case, minimum **50% of earnest money or Rs. 20lacs**, 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 **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 certificate of work experience and other documents as specified in the NIT shall be scanned and uploaded to the e-Tendering website within the period of bid submission. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose scanned and uploaded original EMD deposited and other documents are found in order. However, certified copy of all the scanned and uploaded documents as specified in NIT shall have to be submitted within a week in the office of tender opening authority by the lowest bidder only.

The bid submitted shall be opened at 03:30 PM on **11/09/2026**

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

- (i) The bidder is found ineligible.

(* To be filled by Executive Engineer)

- (ii) The bidder does not upload scanned copies of deposited original EMD with division office of any Executive Engineer, CPWD and all the documents stipulated in the bid document.
- (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of tender opening authority.
- (iv) 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.

10. The contractor whose bid is accepted will be required to furnish 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 **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 including e-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 afore said provisions by the sub-contractors, if any engaged by the contractor for the said work and program chart (Time and Progress) within the period specified in Schedule 'F'.

11. Description of the work is as follows: **Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.**

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 bidders 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 bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for 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 bid and the bidders shall be bound to perform the same at the rate quoted.
15. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted 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 bid or engagement in the contractor's service.
17. The bid for the works shall remain open for **acceptance for a period of thirty (30) days from the date of opening of bids in case of single bid system and ~~75 (seventy-five) days from the date of opening of technical bids in case bids are invited in 2 or 3 bid system.~~** Further
 - i) If any tenderer withdraws his tender or makes any modifications in the terms and conditions of the tender which is not acceptable to the department within 7 days after the last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - ii) If any tenderer withdraws his tender or makes any modifications in the terms and conditions of the tender which is not acceptable to the department after expiry of 7 days after the last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - iii) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

18. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall **within 15 days from the stipulated date of start of the work**, sign the contract consisting of:-

- (a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
- (b) Standard **C.P.W.D. Form 7/8** or other Standard C.P.W.D. Form as applicable.

19. For Composite Bid

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

19.1.2 The bid document will include following components:

Part A:-CPWD-6, **CPWD-7/8** including schedule A to E for the major component of the work, Standard General Conditions of Contract for CPWD 2023 (Maintenance Works) as amended/modified up to **previous day of the last date of submission of tender**.

(Schedule A to F for minor component of the work. (SE/EE in charge of major component shall also be competent authority under clause 2 and clause 5 as mentioned in schedule A to F for major components).

Part B: -General / specific conditions, specifications, Additional conditions & Guarantee Bonds & Preferred makes for major component (s) of the work.

Part C:-Schedule of quantities applicable to major & minor component (s) of the work.

Part D: -Price Bid Sheet.

19.1.3 The bidders must associate himself, with agencies of the appropriate class eligible to bid for each of the minor component individually.

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

19.1.5 After acceptance of the bid by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of the President of India. After the work is awarded, the main contractor will have to enter into one agreement with EE in charge of major component and has also to sign two or more copies of agreement depending upon number of EE's in charge of minor components. One such signed set of agreement shall be handed over to EE/ in charge of minor component(s). EE of major component will operate **Part A, Part B, Part C and Part D** of the agreement. ~~EE in charge of minor component(s) shall operate, Part D along with Part A of the agreement.~~

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

- 19.1.7 Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.
- 19.1.8 The main contractor has to associate agency(s) for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of minor component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of relevant component(s).
- 19.1.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of relevant specialized component(s). The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
- 19.1.10 The main contractor has to enter into MoU with contractor(s) associated by him. Copy of such MoU shall be submitted to EE/DDH in charge of each minor component as well as to EE in charge of major component. In case of change of associate contractor, the main agency(s) has to enter into MoU with the new contractor associated by him.
- 19.1.11 Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor. The EMB shall be maintained independently by Engineer-in-charge of major and minor component.
- 19.1.12A. The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.
- 19.1.12B. Final bill of whole work shall be finalized and paid by the EE of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.
20. 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*(**Phone no.022 -20870519 Email ID: mumee-rbpd@cpwd.gov.in*** or ERP help line no. 18001803286 or e-mail Id cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.

(* To be filled in by NIT Approving Authority)

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

(A)	Tender for the work of:	Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.
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- (i) To be uploaded by **03:00 PM on 11/09/2026** at <https://etender.cpwd.gov.in>*
- (ii) To be opened in presence of tenderers who may be present at **03:30 PM on 11/09/2026** in the office of **Executive Engineer (C), Navi Mumbai-II, CPWD, Navi Mumbai-400 614**

(* To be filled by Executive Engineer)

TENDER

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

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 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 respect of accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for **Thirty (30) days** from the due date of its opening and not to make any modification 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 including e Bank Guarantee (as prescribed) issued by a Commercial bank is scanned and uploaded (**strike out as the case may be**). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

(* To be filled by Executive Engineer)

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

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

Postal Address

Address:

Occupation:

ACCEPTANCE

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

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

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

For & on behalf of President of India

Signature

Designation

Dated:

Brief Particulars of the Work

Name of work: Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.

A -Civil Work:

The following features of the major components have been made for **Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.**

1. Providing and fixing 18 mm thick granite stone slab for window sills, complete.
2. Providing and laying rectified glazed ceramic wall tiles and vitrified floor tiles in the existing damaged portions of toilet floors, room floors and walls, including all necessary surface preparation, complete.
3. Damaged APP waterproofing treatment, cleaning the surface and preparing the substrate for the new waterproofing system, with Providing and applying P.U. waterproofing with one coat of Dr. Fixit Prime seal primer dilute with water.
4. Replacement of sanitary fittings and fixtures as per actual site requirements, including water closets (WC), wash basins, CP brass taps, angle valves, health faucets, bib cocks and other allied sanitary fittings, complete.
5. Providing and fixing powder-coated aluminium sliding windows with 5 mm thick clear float glass, SS 304 grade fly-proof stainless steel wire mesh, necessary hardware, rollers, touch locks, handles, screws and all accessories, complete.
6. Making good the disturbed plaster around the window openings after replacement of aluminium windows, including filling of gaps with polymer-modified mortar, finishing the jambs, soffits and sills, applying wall putty wherever required, primer coat and two or more coats of acrylic paint to match the existing wall finish,
7. Providing and fixing factory-made single-extruded WPC (Wood Polymer Composite) solid board shutters, comprising:
 - 30 mm thick WPC shutters for toilet doors,
 - 25 mm thick WPC shutters for cupboards, and
 - 18 mm thick WPC shutters for kitchen cabinets,including all necessary hardware, fittings and fixtures, complete.

Special conditions pertaining to Site Facilities/ Restrictions

- i. The bidders are required to visit the site and check the feasibility of space required for steel yards, stores, site laboratory etc. and installation of various tools and plants. The contractor shall make his own arrangement for establishment of the above-mentioned facilities and for which nothing extra shall be paid. The Engineer-in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.
- ii. The contractor shall make his own arrangement for erection of labour hutment and for which nothing extra shall be paid. The Engineer-in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.
- iii. The contractor shall make its own arrangement for tapping of electricity from local available Electricity Board for which necessary prevailing charges shall be paid by the contractor to the electricity Statutory Body. Before tendering, the bidders shall visit the site and assess the manner

in which he/she is able to arrange the above facilities. The Engineer-in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.

- iv. Water for construction purposes shall be responsibility of contractor.
- v. The Contractor shall abide by the rules/ bye laws applicable in respect of water/ electricity connection and he shall be solely responsible for any penalty on account of violation of any of the rules / bye laws in this regard. The Contractor shall indemnify the Department (CPWD) against any claim arising out of pilferage, theft, damage, penalty, non-settlement of bills etc. whatsoever on this account.
- vi. In the event of any local personal problems, local body issues etc. arising while discharging function at site, contractor will deal with it appropriately and will not bring such matter towards CPWD.
- vii. The agency shall be required to strictly follow security norms and procedure in terms of entry/ exit passes to all the vehicles/ persons/ materials, issue/ reissue/ surrender of labour passes and other rules and regulations that will be brought in force from time to time by this department Any penalty imposed by CPWD for violating security norms will be immediately paid by the agency for which nothing extra shall be paid.
- viii. The liaisoning with Maharashtra pest control office or any other local bodies as required shall be in the scope of the contractor.
- ix. After completion of individual work, the area shall be clean and cleared of debris. No debris shall be seen laying outside/ nearby side and shall be disposed of from **CBI Pool Quarters, Pant Nagar, Ghatkopar, Mumbai** premises at contractor risk and cost, so as no statutory authorities shall be complained.
- x. Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/ instructions and nothing extra shall be payable on this account.
- xi. Contractor shall follow all the safety rules and security process vogue and applicable during execution of work. Contractor is requested to take practical steps to prevent danger to persons employed by the contractor from the risk of Snake bite, Accident fall, Electric Shock, Fire Explosion etc. In case above precautions are neglected, contractor is bound to bear expenses of defence of every suit action or other proceedings law that may be brought by any person and to pay damages/cost towards the compromise any claim by such persons.
- xii. Contractor shall inspect the site and check for provision of arrangement of lifting of material for various work such as waterproofing etc. It is requested that arrangement for lifting various material such as waterproofing material to terrace shall be done from outside the building by the contractor and running lifts of the building shall not be permitted for use for the same.

PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each intending e-bidder)

SCHEDULE 'A' Schedule of quantities (as per PWD-3)	As per enclosed Schedule of Quantities.
SCHEDULE 'D' Extra schedule for specific requirements/ document for the work, if any.	Nil
SCHEDULE 'E' Reference to General Conditions of contract.	GCC 2023 (Maintenance Works) CPWD form 7 as modified & corrected up to the last date of submission of tender.
Name of Work	Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.
Estimated cost of work	Rs. 57,89,065/-
Earnest money	Rs. 1,15,781/-
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.
Security deposit	2.5% of tendered value
SCHEDULE 'F' GENERAL RULES & DIRECTIONS:	
Officer inviting tender	Executive Engineer (C), Navi Mumbai-II, CPWD, Navi Mumbai or his successor thereof
Definitions:	
CPWD Directorate	CPWD Directorate includes Director General / Special Director General / Additional Director General / CPM/CA/ Chief Engineer / CE-ED / PM / SE / SE-PD / Director (Horticulture)
Successor	Any authority as notified by the CPWD Directorate before, during and after execution of work/agreement

2(vi) Engineer-in-Charge	1-For Civil works – Executive Engineer (C), Navi Mumbai-II, CPWD, Navi Mumbai or his successor thereof
2(viii) Accepting Authority	Executive Engineer, Navi Mumbai-II, CPWD, Navi Mumbai or any other Authority as notified by CPWD, Directorate.
2(x) Percentage on cost of materials and labour to cover all overheads and profits:	15%
2(x)(b) Standard Schedule of Rates	D.S.R. 2023 with correction slips issued up to previous day of the last date of submission of tender and Market rates.
2(xi) Department	Central Public Works Department.
9(ii) Standard CPWD Contract Form	General Conditions of Contract Maintenance Works 2023 , CPWD form 7 as modified & corrected up to previous day of the last date of submission of tender.
Clause 1	
(i) Time allowed for submission of performance guarantee, programme chart (time and progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.	07 days
(ii) Maximum allowable extension with late fee at 0.1% per day of performance guarantee amount beyond the period provided in (i) above	03 days
Clause 2	Applicable
Authority for fixing compensation under clause 2	Superintending Engineer, Mumbai-II, CPWD, Mumbai -86 Or successor thereof.
Clause 5	
Number of days from the date of issue of letter of acceptance for reckoning date of start. Mile Stone(s) as per table given below:-	10 days

Sl. No	Description of Milestone (Financial)	Time allowed in Months (from date of start)	Amount to be with-held in Case of non-achievement of mile stone
1	1/4 th (of the Tendered amount).	1/4 th (of the whole period)	1.25% of tendered Amount
2	1/2 th (of the Tendered amount).	1/2 th (of the whole period)	1.25% of tendered Amount
3	3 /4 th (of the Tendered amount).	3/4 th (of the whole period)	1.25% of tendered Amount
4	Full Amount (of the Tendered amount).	Full Period	1.25% of tendered Amount

Note: The withheld milestone will only be released when subsequent milestone is achieved within the specified time.

Time allowed for execution of work **06 (Six) Months**

Authority to decide:

(i) Authority to decide Extension of time	Superintending Engineer, Mumbai-II, CPWD, Mumbai or his successor thereof
(ii) Authority to decide Rescheduling of Milestone	Superintending Engineer, Mumbai-II, CPWD, Mumbai or his successor thereof
(iii) Authority to decide Shifting of date of start in case of delay in handing over of site	Superintending Engineer, Mumbai-II, CPWD, Mumbai or his successor thereof

Clause 5 Schedule of handing over of site

Part	Portion of Site / Design	Description	Time Period for handing over reckoned from date of issue of letter of intent
Part A	Portion without any hindrance.	Total Site	Available
Part B	Portions with encumbrances	-----	Not Applicable
Part C	Portions dependent on work of other agencies	----	Not Applicable

Clause 6

Computerized Measurement Book (CMB) / Electronic Measurement Book (EMB)

Mode of Measurement: CMB/EMB

Electronic Measurement Book (EMB)

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. 10 lakh or reasonable part thereof to facilitate progress of work.
Clause 7A Whether Clause 7A shall be applicable.	Yes
Clause 8 Authority to decide compensation on account if contractor fail to submit completion plans	SE, Mumbai - II
Clause 10A Materials to be provided by the contractor	Yes, all materials
Clause 10C Component of labour expressed as percent of value of work	Not Applicable
Clause 10CC	Not Applicable
Clause 11 Specifications to be followed for execution of work	CPWD Specifications 2019, Volume-I and II with correction slips issued up to previous day of the last date of submission of tender.
Clause 12 Authority to decide Deviation beyond 1.25 upto 1.5 times of tendered amount	Superintending Engineer, Mumbai-II, CPWD, Mumbai. Mumbai -86.
12.3 Deviation Limit beyond which clauses 12.3 shall apply for building work.	All the deviated quantities shall be paid at agreement rates.
Clause 16 Competent authority for deciding reduced rates.	Superintending Engineer, Mumbai-II, CPWD, Mumbai or his successor thereof
Clause 18 List of mandatory machinery, tools & plants to be deployed by the contractor at site:-	As per Table-I
Clause 19 Authority to decide penalty for each default.	Executive Engineer (C), Navi Mumbai-II, CPWD, Navi Mumbai or his successor thereof
Clause 19 C	Rs. 1500/- each default
Clause 19 D	Rs. 1500/- each default
Clause 19 G	Rs.200/- per day for each day of default (Subject to a maximum of 5% of the estimated cost of work put to tender)
Clause 19 K	Rs. 1000/- per tradesman per day.

Clause 25

(i) Conciliator	SDG, CPWD, Mumbai
(ii) Arbitrator Appointing Authority	SDG, CPWD, Mumbai
(iii) Place of Arbitration	Mumbai.

Clause 32: requirement of technical representative & recovery rate

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical / Technical Representative)	Minimum Experience (Years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32	
						Figures (inRs.)	Words
1	Graduate Engineer or Diploma Engineer	Civil+ Electrical/ Mechanical	Project Manager cum planning / Quality, site/Billing Engineer	2 or 5 years respectively	1 Of major component	15,000/-	(Rupees Fifteen Thousand Only) Per Month per person

Note:

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10-year relevant experience with a reputed construction co. 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				
Schedule/statement for determining theoretical quantity of cement & Bitumine on the basis of Delhi Schedule of Rates 2023 with upto date correction slips.			D.S.R. 2023 with correction slips issued up to previous day of the last date of submission of tender.	
Variations permissible on theoretical quantities:		Variations	Recoveries proposed	
			Plus side	Minus Side
i(a)	Cement for works with estimated cost put to tender not more than Rs. 25 lakhs.	3% plus/minus	Nil	Not Permitted
ii (a)	For works with estimated cost put to tender more than Rs. 25 lakhs.	2% plus/minus	Nil	Not Permitted
(b)	Bitumen all works	2.5% plus only & nil on minus side	Nil	Not Permitted
(c)	Steel reinforcement and structural steel sections for each diameter, section and category	2% plus/minus	Nil	Not Permitted
(d)	All other materials.	Nil	Nil	Not Permitted

PART- B

(CIVIL Work)

GENERAL REQUIREMENT FOR THE TENDER

Name of Work: Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.

1. The tenderer is advised to read and examine the tender documents for the work and the set of drawings available with Engineer-in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.
2. Separate schedule of quantity is included in this tender for civil, electrical and horticulture items of work. If the tenderer wants to offer any unconditional rebates on their rates, the same should also be offered in the respective components of civil, electrical and horticulture schedules separately. The contractor shall quote the percentage rates in figures and words accurately so that there is no discrepancy in rates written in figures and words.
3. Time allowed for the execution of work is **06 (Six) Months**
4. The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence their tenders. The Contractor shall carryout survey of the work area, at his own cost, setting out the layout and fixing of alignment of the building as per architectural and Structural drawings in consultation with the Engineer-in- Charge. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge. It shall be responsibility of the Contractor to ensure correct setting of alignment. Nothing extra shall be payable on this account. No claims, whatsoever, shall be entertained at a later date for any errors found, on plea that the information supplied by the Department in the tender is insufficient or is at variance with the actual site conditions
5. The Contractor shall, if required by him, before submission of the tender, inspect the drawings in the Office of the Executive Engineer (C), Navi Mumbai-II, CPWD, 7th Floor, CGO Complex, CBD Belapur, Navi Mumbai - 400614. The Department shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender documents have been furnished, in good faith, for general information and guidance only. The Engineer- in-Charge, in no case, shall be held responsible for the accuracy thereof and/or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different or in-correct otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the tender documents.
6. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.
7. The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred. There may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respects.

8. The contractor(s) shall submit a detailed program of execution in accordance with the master programme / milestone within ten days from the date of issue of award letter.
9. Quality of the work is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant paras.
10. The contractor (s) shall make his own arrangements for electricity and water required for the execution of work.
11. **Cement shall be arranged by the contractor himself.**
12. **Steel Reinforcement shall be arranged by the contractor himself.**
13. **Engagement of agency for specialized works:**
14. Contractor has to deploy required Plant and machinery on the project. Minimum number of plant and machinery to be deployed by him is indicated in Table-I(T & P). In case the contractor fails to deploy the plant and machinery whenever required and as per the direction of the Engineer-in-charge, he (Engineer-in-charge) shall be at a liberty to get the same deployed at the risk and cost of the contractor.
15. The procedure on operation of e-MB i.e. uploading details of agreement and BOQ, recording online measurement(s) and raising Request for Inspection (RFI) by the contractor, verification and test check process by the department, selection of RFI for billing, summary of quantities, downloading and printing of e-MB, loss of e-MB etc. are given in SOP no.5/20(B) of SOP 2022.

The Contractor shall record measurement online on ERP Portal and shall raise Request for Inspection (RFI) online for checking the online measurements by the engineer-in-charge or his/her authorized representative as per programme or interval fixed in consultation with Engineer-in-charge and / or his /her authorized representative. If after verification by the Engineer-in-charge and or his / her authorized representative, any change is required, then Engineer-in-charge and /or his /her authorized representative seeking the change shall return the online rejected measurements to the contractor for incorporating the changes. The contractor shall resubmit such measurements online after making necessary changes. All the changes are to be finally authorised by the Engineer-in-charge and / or his/her authorized representative.

The contractor shall have to download the ERP numbered EMB for the approved RFI (request for inspection), from ERP portal, submit printout of final EMB, having pages of A-4 size without any corrections/cuttings/overwriting/insertion, duly bound, with its pages machine numbered and signed on each page to the Engineer-in-charge.

The Engineer-in-charge and /or his / her authorised representative would thereafter check this ~~EMB~~/EMB and record the necessary certificates for their checks /test checks as per the standard format of department and shall act as per clause 6 of GCC-2023 of Maintenance work.

16. Contractor has to provide reinforcement cover blocks made of approved proprietary pre-packed free flowing mortars (Conbextra as manufactured by M/s Fosroc Chemical India Ltd. or approved equivalent) of high early strength.

17. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time.
18. Bricks shall be of not less than class designation as specified in the nomenclature of the item. The average water absorption of bricks, when immersed in water for 24 hours, shall not be more than 20% of their dry weight.
19. In the event of any local problems arising while discharging your function at site, Contractor will deal with situation appropriately and Contractor will not bring CPWD on the scene for such matters.
20. All the liabilities arising out of any provision of Labour Acts in force and enacted / amendment from time to time during the execution of contract shall be contractor's responsibility.
21. The contractor shall be responsible for the proper conduct of their employees who would be employed by them on execution of this work in case it is noticed that any of their staff indulges in bad behaviour or commit thefts or tamper with any of the properties of the Centre, the contractor shall remove the concerned employee and make good the loss forthwith on receipt of complaint.
22. The contractor shall abide by the general directives and conditions of contract and contract labour health regulations or any other directives issued by the management / state Centre. Govt. or any other statutory body at any time during the execution of contract.
23. If your work is found unsatisfactory, CPWD reserves right to terminate the contract without giving any notice and work shall be completed at Contractor risk and cost.

MATERIAL AND QUALITY ASSURANCE

1 Quality of Materials and Workmanship

- i. The Contractor shall ensure that the Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Sound Engineering practice. The work shall be of the specified quality and standard, both in respect of ingredients as well as the intended functions it is supposed to perform for service life.
- ii. The Contract warrants that all Materials shall be new, unused, not reconditioned, unless otherwise allowed as per contract or by Engineer-in-Charge, and in conformity with Specification and Standards, Applicable Laws and Sound Engineering Practice, and that the Contractor shall not use any materials which are generally recognized as being deleterious under Sound Engineering Practice.
- iii. The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

2 Quality Assurance System

The Contractor shall devise a quality assurance mechanism to ensure compliance with the provisions of this Agreement (the "Quality Assurance Plan" or "QAP").

- (i) The Contractor shall, submit to the Engineer-in-Charge, its Quality Assurance Plan 15 (fifteen) days in advance of start of the execution stage specified in the NIT. The Engineer-in-Charge shall convey its comments to the Contractor within a period of 7 (seven) days of receipt of the QAP stating the modifications, if any, required and the Contractor shall incorporate those in the QAP conforming with the provisions of this clause. The QAP shall include the following:
 - (a) Contractor's Organization & structure, duties and responsibilities of individual key personnel, quality policy of contractor, procedure for control of non-conformities and corrective action, inspections and documentation.
 - (b) Internal quality audit system.
 - (c) Machinery, Shuttering, other Tool & Plants, etc. required to be deployed at site.
 - (d) Method statement of important activities. These can be submitted as per the sequencing of the activities of the work.
 - (e) Quality control mechanism including sampling and testing of Materials, test frequencies, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, proforma for testing and calibration in accordance with the Specifications and Standards and Sound Engineering Practice; and Material Lot size, number of required tests and frequency of testing for different construction materials. All the relevant and applicable codes, specifications and standards, as well as the acceptance criteria for various items of work, workmanship, materials and process employed needs to be mentioned.
 - (f) Check-list for various items and materials.
 - (g) Formats for site documentation, monthly reports on implementation of QAP

1. Test Laboratories:

A. Laboratory at site:

The contractor shall establish a testing lab at site and provide testing equipment and materials for the field tests mentioned in the list of mandatory tests given in CPWD specifications 2019 Vol. 1 & 2. Nothing extra shall be payable to him on this account.

The representatives of the department shall be at liberty to inspect the testing facilities at site and conduct testing at random in consultation with Engineer-in-charge. The contractor shall provide all necessary facilities for the purpose. The laboratory shall be equipped, inter alia, with the following equipment's:

a) Balances:

- i) 7 kg to 10 kg capacity, semi-self-indicating type – Accuracy 10 gm.
- ii) 500 gm capacity, semi-self-indicating type Accuracy 1 gm.
- iii) Pan Balance- 5 kg Capacity- Accuracy 10 gm.

b) Ovens- Electrically operated thermostatically controlled up to 110°C- Sensitivity 1°C.

c) Sieves: as per IS: 460-1962.

- i) IS Sieves – 450 mm internal dia. of sizes 100 mm, 80 mm, 63 mm, 50 mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm, complete with lid and pan.
- ii) IS Sieves – 200 mm internal dia. (brass frame) consisting of 2.36 mm, 1.18 mm, 500 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.

d) Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.

e) Equipment for slump test- slump cone, steel plate, tapping rod, steel scale, scoop.

f) Equipment for concrete testing

- | | | |
|---|----|------|
| i) Concrete cube moulds 15x15x15cm. | 12 | Nos. |
| ii) Temping Rods 2Kg weight length 40cm and ramming face 25mm | 02 | Nos. |
| iii) Extra Bottom plates for 15cm cube mould | 12 | Nos. |
| iv) Standard Vibration table for cubes | 02 | Nos. |
| v) Dial gauges 25 mm travel- 0.01 mm/division least count- | 02 | Nos. |
| vi) Graduated measuring cylinders 200ml capacity | 03 | Nos. |
| vii) Enamel trays (for efflorescence test for bricks). | | |
| (i)300mmx250mmx40mm | 2 | Nos. |
| (ii)Circular plates of 250mm dia | 4 | Nos. |

Not more than 90% tests for material be performed at site lab with above stated equipment's, however at least 10% testing of materials shall be got done from external laboratories. However, for the tests to be carried out by the external laboratories, the contractor shall supply free of charge

all the materials required for testing, including transportation. If the tests which were to be conducted in the site laboratory are conducted in other laboratories for any reason the cost of such tests shall be borne by the contractor.

Other Laboratories:

The contractor shall arrange carrying out all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and 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.

Testing of materials in any Govt Lab / Public Undertaking Lab/IIT or NIT lab/Government Engineering College may be allowed by the Engineer-in-charge. However, in case of private lab, the ADG/SDG will approve the lab accredited by NABL or any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes.

3 Sampling of Materials:

- i. All samples of materials including Cement Concrete Cubes shall be taken by the QA engineers deployed by the Contractor and shall be witnessed by the Engineer-in-Charge or his authorized representatives as specified in NIT. All the necessary assistance, facilities and safety shall be provided by the contractor. Cost of sample of materials and testing charges shall be borne by the contractor and he/she is responsible for safe custody of samples to be tested at site.
- ii. Sample of building materials fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used. In case the above are not available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles 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.
- iii. The contractor shall ensure quality of 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.
- iv. BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and/or the work done.
- v. The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.
- vi. All materials 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.
- vii. The contractor shall be fully responsible for the safe custody of the materials issued to him even if the materials are in double lock and key system.

- viii. The Stone aggregate / stone, sand shall be brought from source approved by engineer-in-charge subjected to the said materials confirm CPWD specifications.

4 Testing of Materials:

The contractor shall establish temporary field laboratory of adequate size with all necessary facilities. Field laboratory shall be equipped with the testing equipment for conducting routine field tests as per this contract. It will also have copies of standards, BIS codes, IRC codes, relevant publications. All the tests in field lab setup at construction site shall be carried out by the QA Staff deployed by the contractor and shall be witnessed by the Engineer-in-Charge or his authorized subordinates as specified in NIT. The contractor shall provide all necessary facility to them for witnessing the tests in the field laboratory. In general, contractor shall carry out 90% of field tests in site laboratory and 10% tests shall be got carried out from outside laboratory as indicated below. Contractor shall endeavor to obtain test reports for tests conducted from outside laboratory in a reasonable time.

5 Maintenance of Register:

- 1 All test registers, MAS registers and Cement, Steel, Paint, Chemical etc. registers Site OrderBook, Inspection Register, and Hindrance records are to be maintained at site. All test registers, site order book, MAS registers and Cement, Steel, Paint, Chemical etc. registers issued by the Engineer-in-Charge shall be maintained by the contractor which will be reviewed by the officers of CPWD at regular intervals.
- 2 Maintenance of Register of Test –
 - i. The test registers to be issued to the contractor are:
 - a) Materials at site account register.
 - b) Cement register.
 - c) Master test registers.
 - d) Cube test register.
 - e) Paint register.
 - f) Inspection registers.
 - ii. All the entries in the register of test are to be made by the designated QA Engineers of the contractor and same is to be regularly reviewed by the field officers as well as the Engineer-in-Charge. The contractor shall allow inspection of such records any time as desired by Engineer-in-Charge or his authorized representative.
 - iii. All the tests carried out at construction site or outside laboratories are to be maintained by the contractor in the prescribed format in the test registers provided by the contractor and duly authenticated by Engineer-in-Charge. The test reports shall also be maintained in hard file.
 - iv. All Samples of materials including Cement Concrete Cubes shall be taken jointly with Contractor by JE/AE and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all Samples of materials including Cement Concrete Cubes shall be taken by AE jointly with Contractor. All the necessary arrangement 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/lab.
 - v. 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 JE/AE. At least 10% of the tests are to be witnessed by the Executive Engineer. Mandatory test conducted as per approved proforma shall be attached with each Running bill. Submission of copy of all test registers and material at site register along with each alternate Running Account Bill and with Final Bill is mandatory. This register should be check in the office Executive Engineer, EE(C)- Navi Mumbai-II, CPWD, Navi Mumbai or his Successor.

- vi. Minimum 10% test should be conducted in outside approved lab as directed by Engineer-in-Charge. Nothing extra will be paid on this account.

3 Maintenance of Material at Site (MAS) Register-

- i. MAS register of the key materials including Cement and Steel Registers shall be maintained in the proforma approved by Engineer-in-Charge. All the entries in the MAS registers are made by the designated staff of the contractor and same is regularly reviewed by the field officers as well as the Engineer-in-Charge. Contractor is responsible for maintenance and safe custody of MAS registers. Authenticated copies of bills / vouchers of materials which have to be entered in the MAS register are to be submitted by the contractor to CPWD before making payments.
- ii. Each entry of receipt of material at site is 100% test checked by JE or by AE if there is no JE. If both JE & AE are available AE should test check at least 50% of the entries.
- iii. Each MAS Register is checked by JE & AE at least once a week.
- iv. Cement Register is reviewed by EE at least once in a month for work at same station and alternate months for work at outstation.
- v. It will be deemed that work so measured, checked and paid is of the required quality and standard, both in respect of ingredients as well as the intended functions it is supposed to perform. In other words, the work would not only meet the required specifications but also the workmanship as per sound engineering practices.
- vi. The SE /CE shall also have to check and sign the registers at suitable intervals in token of his ensuring compliance of the 'Quality Assurance Plan' for the work.
- vii. Copies of bills: Agency will provide authenticated copies of itemize bills of materials which has to be entered in the MAS Register viz steel, cement, bitumen, paint, water proofing or any other item suggested by the Engineer-in-Charge.

6 Samples

The Contractor shall, at its own expense and without delay, provide the samples of Materials and relevant information like Manufacturer's test reports, standard samples of manufactured Materials and Samples of such other Materials as the Engineer-in-Charge may require for review and approvals in accordance with Clause 10A of GCC before actual use.

7. Test

- (i) For determining that the Works conform to the Specifications and Standards, the Engineer-in-Charge shall require the Contractor to carry out or cause to be carried out tests, at such time and frequency and in such manner as specified in this Agreement and in accordance with sound engineering practice for quality assurance. Frequency and the manner in which tests shall be conducted shall be in the following order of preference:
 - (a) Contract provisions.
 - (b) CPWD specifications.
 - (c) BIS codes.
 - (d) IRC codes.
 - (e) MoRTH Specifications.
 - (f) International Codes.

- (g) Manufacturer's specifications. Outside tests shall be conducted at Government labs /IITs/NITs and other approved laboratories by the Engineer-in-Charge for testing of materials
- (ii) The Contractor shall, with due diligence, carry out all the tests in accordance with the agreement and furnish the results thereof to the Engineer-in-Charge. The Engineer-in-Charge or his authorized representative shall witness or participate during the testing as specified in NIT. The contractor shall provide all necessary assistance for witnessing/participating in the field tests.
- (i) In the event that results of any tests conducted under this clause establish any defects or deficiencies in the Works, the Contractor shall carry out remedial measures at its own cost and furnish a report to the Engineer-in-Charge in this regard. The Engineer-in-Charge shall require the Contractor to carry out or cause to be carried out tests to determine that such remedial measures have brought the works into compliance with the specifications and standards and the procedure shall be repeated until such Works conform to the Specifications and Standards

8. Inspection of records

The Engineer-in-Charge or his authorized representative shall have the right to inspect the records of the Contractor relating to the works.

9. Inspection of Works

- i. Officers of CPWD shall be inspecting the ongoing work at site at any time with or without prior intimation. The contractor shall, therefore keep updated the following requirements and detailing.
 - a. Entrance and area surrounding to be kept cleaned.
 - b. Display layout plan key plan, building drawings including plans, elevations and sections.
 - c. Upto date displays of Bar chart, CPM and PERT etc.
 - d. Keep details of quantities executed, balance quantities, deviations, possible Extra item, substituted Item etc.
 - e. Keep plastic / cloth mounted one sets of Structural Drawings.
 - f. Set of Helmets and safety shoes for exclusive use for officers/dignitaries visiting at site.
- ii. The Engineer-in-Charge and his authorized subordinates shall at all times;
 - a) have full access to all parts of the site and to all places from which natural materials are being obtained for use in the works; and
 - b) during production, manufacture and construction at the site and at the place of production, be entitled to examine, inspect, measure and test the materials and workmanship and to check the progress of the manufacturer of Materials.
- iii. The Contractor shall give the Engineer-in-Charge and its authorized representative access, facilities and safety equipment for carrying out their obligations under this agreement.

10. Examination of work before covering up/ Test Check of item of Work

In respect of the work which the Engineer-in-Charge or his authorized representatives are required to examine, inspect, measure or test before it is covered up or put out of view or any part of the work is

placed thereon, the Contractor shall give notice to the Engineer-in-Charge whenever any such work is ready and before it is covered up. The Engineer-in-Charge shall then either carry out the examination, inspection or testing without unreasonable delay within 7 days, or promptly give notice to the Contractor that the Engineer-in-Charge does not require him to do so. Provided, however, that if any work is of a continuous nature where it is not possible or prudent to keep it uncovered or incomplete, the Contractor shall notify the schedule of carrying out such work to give sufficient opportunity, not being less than 3(three) business days' notice, to the Engineer-in-Charge to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Engineer-in-Charge within a period of 3 (three) business days from the date on which the Contractor's notice hereunder is delivered to the Engineer-in-Charge, the Contractor shall be entitled to assume that the Engineer-in-Charge would not undertake the said inspections.

11. Rejection

- i. If, as a result of an examination, inspection, measurement or testing, any Plant, Materials, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Engineer-in-Charge may reject such piece of work, Plant, Materials, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the requirements of this Agreement.
- ii. If the Engineer-in-Charge requires a Piece of work, Plant, Material, design or workmanship to be retested, the tests shall be repeated on the same terms and conditions, as applicable in each case. If the rejection and retesting cause the department to incur any additional costs, such costs shall be recoverable by the Engineer-in-Charge from the Contractor and may be deducted by the Engineer-in-Charge from any amount due to be paid to the Contractor.
- iii. The Contractor shall not be entitled to any extension of time on account of rectifying any defect or retesting as specified in this clause.
- iv. Examination, inspection, measurement or testing of any Plant, Material, design or workmanship by the Engineer-in-Charge or its failure to convey its observations or to examine, inspect, measure or test shall neither relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Engineer-in-Charge be liable for the same in any manner.

12. Remedial work

- i. Notwithstanding any previous test or certification, the Engineer-in-Charge may instruct the Contractor to:
 - (a) Remove from the site and replace any piece of work plant or materials which are not in accordance with the provisions of this Agreement.
 - (b) Remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and
 - (c) Execute any work which is urgently required for the safety of the Project, whether because of an accident, unforeseeable event or otherwise.
- ii. If the Contractor fails to comply with the instructions issued by the Engineer-in-Charge under aforesaid para, within the time specified in the notice or as mutually agreed, the Engineer-in-Charge may get the work executed by another agency. The cost so incurred by the Engineer-in-Charge for undertaking such work shall, without prejudice to the rights of the Engineer-in-Charge to recover damages in accordance with the provisions of this Agreement, be recoverable from the

Contractor and may be deducted by the Engineer-in-Charge from any amount due to be paid to the Contractor.

13. Program Chart

- i. The Contractor shall prepare an integrated program chart within fifteen days of issue of award letter including civil as well as E & M activities for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the program within the stipulated period and submit the same for approval of the Engineer-In-Charge. The detailed provisions in clause 5 of GCC shall be followed.
- ii. 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 & electric supply shall be made by the Contractor for commencement and 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.

14. Cleanliness of Site

- i. The Contractor shall not stack building material/malba/muck on the land or road of **CBI Pool Quarters, Pant Nagar, Ghatkopar, Mumbai** or on the land owned by the others, as the case may be. So, the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local bye laws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material/malba as stated above, the Contractor shall be liable to pay the stacking charges/penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer -in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above accounts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.
- ii. The Contractor shall take all care to prevent any water- logging at site. The waste water, slush etc. shall not be allowed to be collected at site. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

15. Insurance Policies

- i. Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge proper Contractor All Risk Insurance Policy for an amount 1.25 times the contract amount for this work, with Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any liability during the execution of the work. Further, he shall obtain and submit to the Engineer-in-

Charge, a third-party insurance policy for maximum Rs.10 lakh for each accident, with the Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary).

- ii. The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for all the Insurance Policies for keeping them valid till the completion of the work. The Contractor shall ensure that Insurance Policies are also taken for the workers of his Sub-Contractors / specialized agencies also. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 10 days from the date of letter of acceptance of the tender and thereafter at the end of each quarter submit a report to the Department giving details of the Insurance Policies along with Certificate of these insurance policies being valid, along with documentary evidences as required by the Engineer-in-Charge. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on these accounts.

16. The Contractor shall at all reasonable times provide access to the Engineer-in-Charge or his authorized representative to the workshops, factories or other places where materials are stored, for inspection and/or collection of samples. Nothing extra shall be payable on this account.

17. Local Body Permission

The contractor shall be responsible for liasoning work required, if any, in this regard with the local bodies. Nothing extra shall be payable on this account. Statutory charges, fees etc. required to be paid to the local bodies in this connection shall be paid by the contractor and shall be reimbursed by the Department to the contractor on production of proof of actual payment by him.

18. The day to day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the Jr. Engineer-in-Charge of work and which shall be duly signed by the contractor or his authorized representative.
19. The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system.
20. Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site. The contractor shall construct separate godowns for storage of OPC & PPC at site and nothing extra on this account shall be payable.
21. Cement issued shall be for consumption at site only. No cement for factory made items and those not manufactured at site shall be issued.
22. In case there is any discrepancy in frequency of testing as given in the list of mandatory tests and that in the individual sub-head of work as per CPWD specification 2019 Vol. 1 & 2 the higher of the two frequencies of testing shall be adopted.

Note: 1. The above conditions are in addition to general/ other/ additional conditions as specified elsewhere in tender document and nothing extra shall be paid on the account of these conditions.

GENERAL TERMS AND CONDITIONS

1. The order of preference in case of any discrepancy as indicated in condition No. 8.1 under “Conditions of Contract” give in standard CPWD contract form may be read as the following:
 - (i) Description of items as given in Schedule of quantities
 - (ii) Particular specifications
 - (iii) Special conditions
 - (iv) Additional Conditions
 - (v) Tender drawings attached
 - (vi) CPWD Specifications
 - (vii) General Conditions of Contract for CPWD works
 - (viii) I. S. Codes
 - (ix) National Building code.
 - (x) ASTM, BS, or other foreign origin code mentioned in tender document
 - (xi) Decision of Engineer-in-Charge
 - (xii) SoundEngineeringpracticesorwellestablishedlocalconstructionpractices.

Note: Unless otherwise specified, CPWD Specifications 2019 volume I &II with correction slips till the last date of tender submission shall be followed in general. Any additional item of work, if taken up subsequently, shall also conform to the relevant CPWD specifications mentioned above.

A reference made to any Indian Standard specification in these documents, shall imply to the latest version of that standard. Including such revision / amendments as issued by the Bureau of Indian standard up to last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian standard applicable to the work at site.

2. Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of items in the schedule of quantities the work shall generally be carried out in accordance with the “CPWD specifications 2019 Vol. 1 and Vol. 2 (with upto date corrections slips). (Here in after to be referred to as CPWD specifications) and instructions of Engineer-in-Charge. Wherever CPWD specifications are silent the latest IS codes/specification shall be followed.
3. Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same.
4. Several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.
5. 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.
6. The work shall be carried out in accordance with the approved architectural drawings, structural drawings, services drawings to be issued from time to time, by the Engineer-in Charge. Before commencement of any item of work the contractor shall correlate all the relevant architectural and structural drawings, nomenclature of items and specifications etc. issued for the work and satisfy himself that the information available from there is complete and unambiguous. The figure and written

dimension of the drawings shall be superseding the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer- in- charge before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained by the department on this account.

- 7 The Contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan however, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
- 8 The Contractor shall bear all incidental charges for cartage, storage and safe custody of materials, if any, issued by department as well as to those materials also arranged by the contractor.
- 9 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable or extra cement considered in consumption on this account.
- 10
 - a) The contractor (s) shall inspect the site of work before tendering and acquaint himself with the site conditions and no claim on this account shall be entertained by the department.
 - b) 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.
- 11 ~~The contractor (s) shall study the soil investigation report for the site, available in the office of the Engineer in Charge and satisfy himself about complete characteristics of soil and other parameters of site. However, no claim on the alleged inadequacy or incorrectness of the soil data shall be entertained.~~
- 12 If Existing roads of campus cannot be allowed to use for loaded Trucks. The Entry to the site for loaded trucks to carry material shall be along the Boundary Wall, the same shall be made good, improved and maintained by the contractor at his own cost. No payment shall be made on this account.
- 13 The contractor (s) shall give to the Municipality, Police and other authorities all necessary notices etc. that may be required by law and obtain all requisite Licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain light and other illumination on for cautioning the public at night.
- 14 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 dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.
- 15 The contractor shall make his own arrangement for obtaining electric connection(s) if required and make necessary payments directly to the department concerned.

- 16 The contractor shall fully comply with all legal orders and directions of the Public or local authorities or municipality and adhere by their rules and regulations and pay all fees and charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.
- 17 If as per local Municipal regulations, huts for labour are not to be erected at the site of work; the contractor shall be required to provide such accommodation at a place outside the campus as is acceptable to the local body and nothing extra shall be paid on this account.
- 18 It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
- 19 The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.
- 20 The entire royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle sand etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.
- 21 The contractor shall issue Identity card to all labourers and engineers/staff engaged by him and nothing shall be paid on this account.

22 **Prevention of Nuisance and Pollution Control**

The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties from pollutants like smoke, dust, noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind and minimum hindrance to road users and to occupants of the adjacent properties or other services running adjacent/near vicinity. The contractor shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer-in-Charge.

Water Pollution

- (i) The Contractor shall take all precautionary measures to prevent the wastewater during construction to accumulate anywhere.
 - (ii) The wastewater arising from the work is to be disposed of in the manner that is acceptable to the Engineer –in-charge.
- 23 If the work is carried out in more than one shift or during night no claim on this account shall be entertained.
 - 24 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.

- 25** 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 department. No extra payment shall be made on this account.
- 26** The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department.
- 27** The contractor shall take instructions from the Engineer-in-charge for stacking of materials. No excavated earth or building materials etc. shall be stacked / collected in areas where other buildings, roads, services, compound walls etc. are to be constructed.

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.

- 28** The contractor shall take all precautions to avoid accidents by, exhibiting caution boards day and night, speed limit boards, red flags, red light and providing necessary barriers and other measures required from time to time. The contractor shall be responsible for all damages and accidents due to negligence on his part.
- i) The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.
- 29** Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed.

Unless otherwise specified in the schedule of quantities the rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. Those conditions shall be considered to include water from any source such as inflow of flood, surface and sub-soil water etc. and shall apply to the execution in any season.

30 Construction Waste Disposal

- (i) The pre-identified dump locations will be a part of solid waste management plan to be prepared by the Contractor in consultation with Engineer-in-charge.
- (ii) Contractor shall get approved the location of disposal site prior to commencement of the excavation/dismantling work on any section of the work site.
- (iii) Contractor shall ensure that any spoils of material / construction / dismantled material waste will not be disposed off in any municipality solid waste collection bins.

31 Procurement of Construction Materials

- (i) All vehicles delivering construction materials to the site shall be covered to avoid spillage of materials and maintain cleanliness of the roads.

32 Security and traffic arrangements

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

- 33 No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him.

- 34 The contractor shall construct suitable godowns, yard at the site of work for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost

- 35 All materials obtained from contractor shall be got checked by the representative of Engineer- in-Charge on receipt of the same at site before use.

- 36 All statutory taxes, levies, charges (including 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 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.

- 37 For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required the contractor shall do the same at his own cost and nothing extra shall be paid.

- 38 The Contractor shall make all necessary arrangements for protecting from rains, fog or likewise extreme weather conditions, the work already executed and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account and also no claims for hindrance shall be entertained on this account.

- 39 In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any. Further, no claims for hindrance shall be entertained on this account.

40 Setting out

- i. The Contractor shall carry out survey of the work area, at his own cost, setting out the layout of buildings/ roads/ services in consultation with the Engineer -in-Charge & proceed further. Any discrepancy between architectural drawings and actual layout at site shall be brought to the notice of the Engineer -in-charge. It shall be responsibility of the Contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and center lines, etc., Nothing extra shall be payable on this account.
- ii. The Contractor shall establish, maintain and assume responsibility for grades, lines, levels and benchmarks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions etc. 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.
- iii. The Contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignments, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the Contractor at his own cost to the entire satisfaction of the Engineer - in-Charge.
- iv. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.

41 A site laboratory with the minimum equipment's as specified in CPWD specifications/in this agreement shall be established, made functional and maintained within one month from the award of work as given in Quality Assurance System without any extra cost to the department. In case of non-compliance / delay in compliance (To be set up within maximum 2 months from date of start) in this, a recovery @ Rs. 500/- per day will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

42 Tools and Plants

The bidder should have own constructions equipment required for the proper and timely execution of the work. Nothing extra shall be paid on this account.

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.

43 Scaffolding

Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the Contractor. It shall be provided strictly with steel double scaffolding system, 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. 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.

- 44** The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency to deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Also, ancillary facilities shall be provided by contractor commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period. It shall be ensured by the Contractor that all the equipment, Tools & Plants, machineries etc. provided by him are maintained in proper working conditions at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the Contractor, on site of work or his workshop for this work, shall be exclusively used in the construction of this work and they shall not be shifted/ removed from site without the permission of the Engineer-in- Charge.

45 Royalty

Royalty at the prevalent rates shall be paid by the Contractor or the RMC supplier as per the terms of supply between them, on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, earth, river sand, gravels and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Further, contractor needs to submit proof of submission of full royalty to the state government or local authority. Nothing extra shall be payable on this account.

46 Preservation and Conservation Measures

- i. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services, if any, encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted, expenditure incurred in doing so shall be payable to the contractor. The contractor shall work out the cost, get the same approved by Engineer-in-Charge before taking up actual execution. 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.
- ii. All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on project location during excavation/construction shall be the property of the Government, and shall be dealt with as per provisions of the relevant legislation. The contractor will take reasonable precaution to prevent his work men or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer- in-charge of such discovery and carry out the official instructions of Engineer-in- charge for dealing with the same, till then all work shall be carried out in a way so as not to disturb/damage such article or thing.

47 Responsibility

- i. He shall protect and indemnify the Department (EE Navi Mumbai II, CPWD) 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.

- ii. 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.

48 Co-operation with Other Contractors/Specialized Agencies/ Associate Contractors

- i. The Contractor shall take all precautions to abide by the environmental related restrictions imposed by any statutory body having jurisdiction in the area as well as prevent any pollution of streams, ravines, river bed and waterways. All waste or superfluous materials shall be transported by the Contractor, entirely to the satisfaction of the Engineer- in-Charge and disposed at designated places only. No claim what so ever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.
- ii. 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 indemnify the Department (CPWD) against any claim(s) arising out of such disputes. The Contractor shall:
 - (a) Allow use of scaffolding, toilets, sheds etc.
 - (b) Properly co-ordinate their work with the work of other Contractors.
 - (c) Provide control lines and benchmarks to his associate Contractors and the other Contractors.
 - (d) Provide electricity and water at mutually agreed rates.
 - (e) Provide hoist and crane facilities for lifting material at mutually agreed rates.
 - (f) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
 - (g) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.
 - (h) Resolve the disputes with other Contractors/ associate contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.

49 Supervision of Work:

The Contractor shall depute Site Engineer & skilled workers as required for the work along with details of Engineers and supervisory staff. It shall be ensured that all decision-making powers shall be available to the representatives of the Contractor at Mumbai itself to avoid any likely delays on this account. The Contractor shall also furnish list of persons for specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the

similar and other major works, as per the field of their expertise. If during the course of execution of work, the Engineer-in-Charge is of the opinion that the deployed staff is not sufficient or not well experienced, the Contractor shall deploy more staff or better- experienced staff at site to complete the work with quality and in stipulated time limit. Required minimum experience of technical representatives of the contractor shall be as per table given in schedule “F” under clause 32.

50 Specialized Agencies

- i. The contractor has to engage one of the approved agencies as mentioned in the list of specialized work. The main contractor shall not change the specialized agency. However, if the change is warranted, he may do so, with permission of Engineer-in-charge. Nothing extra shall be payable on this account.
- ii. 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.

51 Personal Safety Measures for Labour

Contractor shall provide the following items for safety of workers employed by contractor and associate agencies:

- (i) Protective footwear / helmet and gloves to all workers employed for the work on mixing, cement, lime mortars, concrete etc. and openings in water pipeline/sewer line.
- (ii) Welder’s protective eye-shields to workers who are engaged in welding works.
- (iii) Safety helmet and Safety harness/ belt Provide adequate sanitation/safety facilities for construction workers to ensure the health and safety of the workers during construction, with effective provisions for the basic facilities such as sanitation, drinking water and safety equipment’s or machinery.
- (iv) All the workers should be wearing helmet and shoes all the time on site.
- (v) Masks and gloves should be worn whenever and wherever required.
- (vi) Adequate drinking water facility should be provided at site, adequate number of decentralized latrines and urinals to be provided for construction workers.
- (vii) Full time workers (if any with the approval of Engineer-in-Charge) residing on site should be provided with clean and adequate temporary hutment.
- (viii) First aid facility should also be provided.
- (ix) Overhead lifting of heavy materials should be avoided. Barrow wheel and hand-lift boxes should be used to transport materials onsite.
- (x) Tobacco and cigarette smoking should be prohibited onsite.
- (xi) All dangerous parts of machinery are well guarded and all precautions for working on machinery are taken.
- (xii) Maintain hoists and lifts, lifting machines, chains, ropes and other lifting tackles in good condition. Provide safety net of adequate strength to arrest falling material down below.
- (xiii) Use of durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
- (xiv) Ensure that walking surfaces or boards at height are of sound construction and are provided with safety rails and belts. Provide protective equipment’s such as helmets.
- (xv) Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire prone area and elsewhere.

- (xvi) Provide sufficient and suitable light for working during night.
- (xvii) Ensure that measures to protect workers from materials of construction, transportation, storage and other dangers and health hazards are taken.
- (xviii) Ensure that the construction firm/division/company have sound safety policies.
- (xix) Comply with the safety procedure, norms and guidelines (as applicable) as outlined in NBC 2016.
- (xx) Adopt additional best practices and prescribed norms as in NBC 2016 with upto date amendments.

52 Identify roads on-site that would be used for vehicular traffic. Update vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral type that make up the surface base. Add surface gravel to reduce source of dust emission. Limit amount of fine particles (smaller than 0.075mm) to 10 - 20%. Limit vehicular speed on site 10km/h. Nothing extra will be payable for this.

53 All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust/particulate emissions.

54 Spills of dirt or dusty materials shall be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean – up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained/cleaned up immediately before they can infiltrate into the soil/ground or runoff in nearby areas.

55 Ensure that water spraying is carried out by wetting the surface by spraying water on:

- (i) Any dusty material.
- (ii) Areas where demolition work is carried out.
- (iii) Any unpaved main-haul road and.
- (iv) Areas where excavation or earth moving activities are to be carried out.

56 The contractor shall ensure the following:

- (i) Cover and enclose the site by providing dust screen, sheeting or netting to scaffold along the perimeter of a building.
- (ii) Covering stockpiles of dusty material with impervious sheeting.
- (iii) Covering dusty load on vehicles by impervious sheeting before they leave the site.
- (iv) Transferring, handling / storing dry loose materials like bulk cement and dry pulverized fly ash inside a totally enclosed system.
- (v) Spills of dirt or dusty materials shall be cleaned up promptly so that the spilled material does not become a source of fugitive dust and also to prevent seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil/ground or runoff in nearby areas.
- (vi) Clear vegetation only from areas where work will start right away.

57 Adopt measures to prevent air pollution in the vicinity of the site due to construction activities. There is no standard reference for this. The best practices should be followed (as adopted from international best practice documents and codes).

- 58** Provide sheet covering / barricading of site of not less than 3m height along the site boundary, next to a road or other public area. Nothing extra will be paid for this.
- 59** The contractor shall provide experienced personnel with suitable training to ensure that these methods are implemented. Prior to the commencement of any work, the method of working, plant equipment and air pollution control system to be used on –site should be made available for the inspection and approval of the Engineer –in-Charge to ensure that these are suitable for the project.
- 60** Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries and asbestos. The inert waste is to be disposed off to Municipal Corporation/local bodies dump yard and landfill sites.
- 61** Spill prevention and control plans should clearly state measures to stop the source of the spill. Measures to contain the spill and measures to dispose the contaminated material and hazardous wastes. It should also state the designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners and petroleum products.
- 62** All lighting installed by the contractor around the site and at the labour quarters during construction shall be CFL/LED bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed otherwise.

Note: 1. The general terms and conditions detailed above are in addition to special/ other/ additional conditions as specified elsewhere in tender document.

2. Nothing extra shall be paid on the account of these conditions.

ADDITIONAL CONDITIONS

1. The tenderer shall acquaint himself with the proposed site of work, its approach roads, working space available etc. Before quoting his rates and no claim on this account shall be entertained by the department.
2. The contractor(s) shall get him acquainted with nature and extent of the work and satisfy him about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.
3. The contractor(s) may study Architectural drawings which are available in the office of Executive Engineer, EE(C)-Navi Mumbai-II, CPWD, 7th floor, A-2 wing, CGO Complex, CBD Belapur, Navi Mumbai- 400614 on all working days between 11:00 to 17:00 hrs.
4. The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account.
5. Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.
6. The contractor shall take all necessary precautions to prevent any nuisance or in- convenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and water-ways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor without any reservation entirely to the satisfaction of the Engineer-in-Charge.
7. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of building/adjacent properties.
8. The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignment, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the contractor at his own cost to the instructions and satisfaction of the Engineer-in-Charge.
9. The rates quoted by the contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark, spot levels, construction of all safety and protection devices, barriers, earth embankments, preparatory works, all testing of materials working during monsoon, working at all depths, height and locations etc. unless specified in the schedule of quantities.
10. Royalty at the prevailing rates wherever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand and bajri etc. or any other material collected by him for the work direct to revenue authorities and nothing extra shall be paid by the department for the same.
11. The contractor shall provide at his own cost suitable weighing, surveying and levelling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.

12. The contractor shall get the water tested with regard to its suitability and conforming to the relevant IS Code. The contractor shall obtain written approval from the Engineer-in-Charge before he proceeds by using the same for execution of work. The water testing charges shall be borne by the contractor.
13. All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
14. 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 materials specified in the nomenclature of item, the same shall be used after getting the same approved from Engineer-in-Charge. Wherever brand / quality of material is not specified, the contractor shall submit the samples as per approved list of brand names given in the tender document / particular specifications for approval of technical sanctioning authority. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-in-Charge. Wherever ISI Marked material/ fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval 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.
15. 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 & contractor shall be bound to replace / remove such sub-standard / defective work immediately.
16. For construction works which are likely to generate malba / rubbish the contractor shall dispose of malba, rubbish & other unserviceable materials and wastes to the notified specified Municipal dumping ground & disposed off to recycling agents only and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.
17. In the event of any restrictions being imposed by the Security agency, CPWD, Traffic or any other authority having jurisdiction in the area on the working or movement of labour/material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc.
18. No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and work for which the payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T & P, Machinery brought to the site by him.

MODE OF MEASUREMENTS

(A) For Computerized Measurement:

The measurements shall be recorded and entered in computerized format in the first instance by the contractor, and a hard copy shall be submitted to the Department. All entries shall be made exactly as per the existing procedure.

These measurements shall then be 100% checked by the Junior Engineer / Assistant Engineer. The contractor shall incorporate all such changes or corrections, as may be done during these checks, to his draft computerized measurement and submit to the department the corrected computerized measurement Books now in use, and with its pages machine numbered.

Executive Engineer shall test check these computerized measurement as per the existing instructions. This book shall be treated as a Computerized Measurement Book.

The Junior Engineer / Assistant Engineer and the Executive Engineer shall record the necessary certificates for their checks and test checks as per the existing procedure in this Computerized Measurement Book.

The Computerized Measurement Book shall be allotted a serial number as per the Register of Computerized Measurement Books.

(B) For Electronic Measurement:

Recording on-line Measurement(s) and raising RFI by the contractor:

- i. Login to CPWD ERP Portal through “e-NIRMIT contractor login” tile available on CPWD web site “cpwd.gov.in”.
- ii. Contractor dashboard appears after successful login. Select the agreement number from the drop down. Project ID, name of work etc. are auto populated with reference to the agreement selected.
- iii. Click on the RFI file, a screen appears with following gabs:
 - Create Measurement: This functionality is to record online measurement(s).
 - Update Measurement: To update already created measurements and to submit the Measurement for RFI.
 - Display Measurement: To display the recorded measurements.
 - Create RFI: To raise the RFI for the measurements already recorded and submitted for RFI.
 - Update RFI: To Update the RFI or /and submit the RFI to CPWD team by selecting the concerned JE/AE from the Team.
 - Display RFI: To Display the data of the RFI.

Generating, downloading and printing-MB:

To generate e-MB, click on the e-MB icon of RFI dashboard for selected agreement, and select discipline against which e-MB has to be raised. Select RFI(s) from the list for which e-MB is to be created.

Once selection of RFI(s) is confirmed, contractor can create the e-MB for the same. On next screen system will show summary of the items processed in the RFI(s). Click on save and e-MB will be

generated. Print icon will be activated after save, contractor can download the e-MB contents as follows:

- i. Date wise measurements of the items.
- ii. Summary of the quantities of the items measured in the current e-MB.

Signature of Contractor:

The signature of contractor or his/her authorized representative is obtained in the e-MB for each set of Measurements. Contractor to submit **three sets** of e- MB, duly bound and machine page numbered, duly signed on each page to the Engineer-in-Charge. Engineer -in-Charge to issue number to each e-MB through Register of e-MBs.

**No cutting/overwriting /insertion is allowed in the downloaded and printed-MB.
The pages of e-MB are ERP numbered.**

ADDITIONAL CONDITIONS FOR CEMENT

1. The contractor shall procure 43 grade ordinary Portland cement conforming to IS: 8112 /Portland Pozzolana Cement conforming to IS:1489 {Part-I} as required in the work, from reputed manufacturers or their authorized dealers/ reseller of cement such as A.C.C., Ultratech, Vikram, Shree cement, Ambuja, Jaypee Cement, Century Cement, J.K. Cement **or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by SDG or his successor thereof appointed by competent authority for that region.** The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.

The 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 the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not confirm to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.

2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer-in-Charge. The cement godowns of the capacity to store a minimum of **2000bags** of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.
3. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.
4. The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. **All expenditure to be incurred for testing of samples e.g. supply of material, packaging, sealing, transportation, loading, unloading, etc. including testing charges shall be borne by the contractor.**
5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. No Minus side cement consumption is allowed. In case of excess consumption, no adjustment needs to made.
6. The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-Charge.

- 7 The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do so within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor.
- 8 The contractor may use PPC confirming to IS 1489 (Part I) in place of OPC for other items of work other than concrete and RMC.
- 9 43 grades ordinary Portland cement conforming to IS 8112 shall be used for concrete and RMC work. The Contractor shall procure cement only from reputed manufacturers as per list of preferred brands as specified in the tender document.
- 10 Cement: - 43 grade ordinary Portland cement conforming to IS 8112 shall be used.
 - a) In case 43 grade Ordinary Portland Cement is not available, the contractor will be allowed to use 53 grade Ordinary Portland Cement (confirming to IS: 12269), subject to documentary evidence produced by the contractor regarding non-availability of the specified grade and also subject to independent verification by the Engineer-in-Charge. Nothing extra shall be paid for this.
 - b) Use of fly ash conforming to IS 3812 (Part –I) is permitted in cement concrete work as partial substitution of OPC subject to fulfilment of conditions as per IS 1489 (Part-I) and satisfying the condition of minimum cement content.

ADDITIONAL CONDITIONS FOR STEEL REINFORCEMENT

1. Special condition for steel reinforcement bars.

- 1.1** The Contractor shall procure only ISI marked corrosion resistant steel (CRS) reinforcement bars (TMT bars of Fe 500D grade or more) from primary manufacturers only:
- a. The CPWD / contractor shall be procure only ISI marked corrosion resistant steel (CRS) reinforcement bars (TMT bars Fe 500D grade or more) from steel manufacturers such as SAIL, RINL, Tata, JSW, JSPL or their authorized dealer / reseller approved by SDG.
 - b. Eligibility criteria and other technical parameter for steel manufacturers:
 - I) The steel manufacturers should have following documentary evidence-
 - i. Certificate of incorporation.
 - ii. Memorandum of articles of Association
 - iii. Credit rating of the company from CARE/CRISIL/ICRA (the grading should not be C/D grade for minimum last 3 years)
 - II) The steel manufacturers must have following licenses and certificates
 - i. ISI certificate for billets (IS 2830:2012).
 - ii. ISI certificate for TMT bars (IS 1786:2008(Amendment-1 Nov 2012)
 - III) The steel manufacturers should also preferably have the following licenses –
 - i. ISO 9001:2015
 - ii. ISO 14001:2015
 - iii. OHSAS 18001:2007
 - IV) The steel manufacturer should be using iron ore as the basic raw material. The entire gamut of iron and steel production is owned by the same company or its subsidiary company (ies) and the iron making capacity is sufficiently matching the steelmaking capacity, adopting any of the refining technologies for manufacturing steel & TMT Bars as given under are eligible:
 - i. BF-BOF route
 - ii. COREX –BOF Route.
 - iii. DRI-EAF route (Each Electric Arc Furnace should be 100 MT or more).
 - V) Billets produced must be ISI marked (IS 2830:2012).
 - VI) The TMT bars produced must be ISI marked (IS 1786:2008). 330
 - VII) The steel manufacturer should have the following in house testing facilities (NABL Accredited):
 - i. Computerized Universal Testing Machine
 - ii. Spectrometer
 - iii. Bend Re-bend facility as per IS-1786:2008 (Amendment-1 Nov 2012).
 - iv. Raw material laboratory: Arrangement for testing Carbon, Sulphur & Phosphorous etc.
 - v. Other testing facilities as specified in IS -1786:2008 & IS-2830:2012
- 1.2** 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.
- 1.3** Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes.

- 1.4** In case the test results indicate that the steel arranged by the contractor does not conform to the specifications, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in-Charge to do so.
- 1.5** 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.
- 1.6** 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.
- 1.7** 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	For consignment above 100 tonnes
Under 10 mm dia bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof
Over 16 mm dia bars	One sample for each 50 tonnes or part thereof	One sample for each 75 tonnes or part thereof

Note: Consignment shall be defined as quantity included in single purchase voucher.

- 1.8** All expenditure to be incurred for testing of samples e.g. supply of material, packaging, sealing, transportation, loading, unloading, etc. including testing charges shall be borne by the contractor.
- 1.9** The actual issue and consumption of steel on work shall be regulated and proper accounts maintained. 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. No Minus side consumption is allowed. In case of excess consumption, no adjustment needs to be made.
- 1.10** 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.
- 1.11** Steel bars brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.
- 1.12** In case the contractor brings surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.
- 1.13** Reinforcement including authorized spacer bars and lappages shall be measured in length of different diameters, as actually (not more than as specified in the drawing) used in the work, nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.

- 1.14** The standard sectional weights referred to as in **Table 5.4 under para 5.3.4, page-140**, in CPWD specifications for works 2019 Vol.1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT bars into standard weight.
- 1.15** Records of actual sectional weight shall also be kept dia-wise & lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as derived actual weight.
- 1.16** If the derived weight as in para **1.15** above is lesser than the standard weight as in para **1.14** above the derived actual weight shall be taken for payment.
- If the derived actual weight is found more than the standard weight than the standard weight as worked out in para**1.14** 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.
- 1.17** Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS: 456.
- 1.18** Tolerances on Nominal Mass (individual sample) shall be as under:-

(Table 5.4A / page-141 / Specification – Vol-1-2019)

Sl. No.	Nominal size mm	Tolerances on the Nominal Mass, percentage
1	Up to and including 10	-8%
2	Over 10 up to & including 16	-6%
3	Over 16	-4%

PARTICULAR SPECIFICATION & CONDITIONS OF WORK

1 EARTH WORK

- 1.1 The work shall be done in accordance with CPWD specifications. Any trenching and digging within the least possible 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 time.
- 1.2 The earthwork in excavation, wherever required, shall be carried out in slushy position. Rates for earthwork shall include cost of the element for working in or under water / liquid mud including pumping of water / liquid mud. Nothing extra shall be payable on this account. Therefore, the Contractor shall quote his rates after studying the site conditions.
- 1.3 De-watering shall be carried out by suitable means with adequate stand-by arrangements of pumps etc. And it shall be ensured that its disposal is carried out as per the regulations of the local bodies. The agencies are, therefore, advised to inspect and acquaint themselves of the site and location of disposal point(s) of water / slush and satisfy themselves as regards method of pumping and disposal required to be adopted. Any default or failure on the part of the Contractor to acquaint him with the aforesaid aspect of work shall not absolve him from his responsibility for the execution / performance of this contract. Also, all permissions in this regard, to be taken from local authorities, shall be obtained by the Contractor. Nothing extra shall be payable on these accounts.
- 1.4 In trenches where surface water is likely to get into cut / trench during monsoons, a ring bund of puddle clay or by any other means shall be formed outside, to the required height, and maintained by the Contractor. Also, suitable steps shall be taken by the Contractor to prevent back flow of pumped water into the trench. Nothing extra shall be payable on this account.
- 1.5 The cost of de watering or working under water and / or liquid mud for execution of all the items for the work is deemed to be included in quoted rates of the respective items and shall not be measured separately for payment. Nothing extra shall be payable for de watering in this work, irrespective of whether specified or not, in the item descriptions or in the specifications / conditions in this contract agreement.
- 1.6 This shall also include water encountered from any sources such as rains, floods, sub- soil water table being high and/or due to any other cause whatsoever.

1.7 Note for all items for excavation: -

It is the responsibility of the contractor to take suitable slope protection measures, if required, to ensure protection of adjoining structures / buildings / compound wall / service line etc. during excavation.

The contractor shall submit proposal for the measures to be undertaken, to the Engineer in Charge for approval before excavation. The approval shall not absolve the contractor of his responsibility to ensure protection of adjoining structures / buildings / compound wall / service line etc. during excavation. The rates quoted by the contractor shall be inclusive of all such protection measures.

1.8 Note regarding payment of Royalty to State Government

No excavated earth shall be removed from the campus unless suggested otherwise by Engineer-in-Charge. All subsoil shall be reused in backfilling / landscape, etc. as per the instructions of the Engineer-in-Charge. The surplus excavated earth shall be disposed of by the contractor at his own cost for reuse. Royalty at the prevailing rate on the soil is to be deposited with the State Govt. Department. A receipt of the same is to be produced by the contractor to the Engineer-in-Charge as a proof of payment. A certificate of reuse as required by the Engineer-in-Charge shall be submitted by the contractor.

2 RCC WORK

The work shall be done as per CPWD specifications.

- 2.1** 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. No minus side variation is allowed in quantity of cement actually used.
- 2.2** For non-scheduled items, the decision of the Engineer-in-charge or his successor thereof regarding theoretical quantity of the cement which should have been actually used shall be final and binding on the contractor.
- 2.3** 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.
- 2.4** In case the contractor brings surplus quantity of cement the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.
- 2.5** Cement register for the cement shall be maintained at site. Cement bags shall be stored in separate godowns to be constructed by the contractor at his own cost as per sketch (which is only indicative and actual size will depend on the site requirements) given in CPWD specifications with weather proof roofs and walls. Each godown shall be provided with a single shutter door with two locks. The key of one lock shall remain with Engineer-in-charge or his authorized representative and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is issued from the godown according to the daily requirements with the knowledge of both parties and proper account for the same is maintained in the standard proforma.

2.6 PROFORMA FOR THE CEMENT REGISTER

PARTICULARS OF RECEIPT

Date of receipt	Quantity received	Progressive total	Date of issue	Quantity issued	Items of work for which issued
1	2	3	4	5	6

PARTICULARS OF ISSUE

Qty. returned at the end of the day	Total issued	Daily balance in hand	Contractor's initial	JE's initial	Remarks (AE/EE's periodical check)
7	8	9	10	11	12

3 DESIGN MIX CONCRETE:

3.1 CPWD Specifications and latest IS Codes shall be followed.

3.2 The concrete mix design / laboratory tests with and without admixture shall be got done by contractor at his own cost and will be carried out by the contractor through one of the following laboratory/Test houses: IIT /NIT/Govt. Engineering Institutions as directed by the Engineer-in-charge.

The various ingredients for mix design / laboratory tests shall be sent to the test houses through the Engineer-in-Charge and the samples of such aggregate & cement shall be preserved at site by the department

3.3 The contractor shall submit the mix design report from any of above approved laboratory for approval of Engineer-in-Charge within 30 days from the date of issue of letter of acceptance of the tender. No concreting shall be done until the mix design is approved by the Engineer-in-charge. In case of white Portland cement and the likely use of admixtures in concrete with PPC/white Portland cement the contractor shall design and test the concrete mix by using trial mixes with white cement and/or admixtures also for which nothing extra shall be payable.

3.4 In case of change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised laboratory mix design report conducted at laboratory established at site shall be submitted by the contractor as per the direction of the Engineer-in-Charge.

4 Concrete and RCC Work

4.1 Design Mix Concrete from RMC plant:

- i. The agency shall arrange RMC (Ready Mix Concrete) from RMC Plants only after getting the same approved from Engineer-in-charge for supplying the concrete. No batch-mix plant at site shall be allowed.
- ii. The Engineer-in-Charge reserves the right to inspect at any stage and reject the concrete if he is not satisfied about quality of product at the user's end.
- iii. The Engineer-in-charge reserves the right to exercise control over the:-
 - a) Ingredients, water and admixtures to be used in the concrete including conducting of tests for checking quality of materials, recording of test results and declaring the materials fit or unfit for use in production of mix.
 - b) Calibration check of the RMC plant.
 - c) Weight and quantity check on the ingredients, water and admixtures added for batch mixing.
 - d) Time of mixing of concrete.
 - e) Testing of fresh concrete, recordings of results and declaring the mix fit or unfit for use. This will include continuous control of the workability during production and taking corrective action, if required.
- iv. For exercising such control, the Engineer-in-charge may depute his authorized representative at the RMC plant. It shall be responsibility of the agency to ensure that all necessary equipment, manpower & facilities are made available to Engineer-in-Charge and/or his authorised representative at RMC plant.
- v. The computerized dispatch slips for each dispatch of RMC shall be kept as record and shall be made

available to the Engineer-in-Charge or his authorized representative.

- vi. All required relevant records of produced and used concrete shall be made available to the Engineer-in-Charge or his authorised representative. Engineer-in-Charge shall, as required, specify guidelines & additional procedures for quality control & other parameters in respect of materials, production & transportation of concrete mix which shall be binding on the agency.
- vii. Concrete as per approved design mix by Engineer-in-Charge shall only be produced and transported to the site.
- viii. The concrete mix design will be carried out by the agency, at his own cost, through one of the following laboratories/Test houses to be approved by Engineer-in-charge:
 - a. National Test House, Mumbai.
 - b. IITs, NITs or any Govt. Engineering College.
 - c. VJTI Mumbai
- ix. In the event above laboratories are unable to carry out the requisite design/testing, the agency shall have to get the same done from any other reputed laboratory with prior approval of the Engineer-in-Charge.

4.2 Cement: - 43 grade ordinary Portland cement conforming to IS 8112 shall be used.

- a) In case 43 grade Ordinary Portland Cement is not available, the contractor will be allowed to use 53 grade Ordinary Portland Cement (confirming to IS: 12269), subject to documentary evidence produced by the contractor regarding non-availability of the specified grade and also subject to independent verification by the Engineer-in-Charge. Nothing extra shall be paid for this.
- b) Use of fly ash conforming to IS 3812 (Part –I) is permitted in cement concrete work as partial substitution of OPC subject to fulfilment of conditions as per IS 1489 (Part-I) and satisfying the condition of minimum cement content.
- c) Admixtures/ Plasticizers: - The admixture shall confirm to IS:9103, wherever required, the admixture of approved quality and from preferred make list attached to this tender document only shall be used to attain the required workability. Nothing extra shall be paid for use of admixtures.

5 PRE-CAST RCC WORK

5.1 Pre-cast reinforced concrete units shall be of grade or mix as specified. Provision shall be made in the mould to accommodate fixing devices such as hooks, flats etc. and forming of notches and holes. Each unit shall be cast in one operation. A sample of the unit shall be got approved from Engineer-in-Charge before taking up the work.

5.2 Pre-cast units shall be clearly marked to indicate the top of member and its locations.

5.3 Pre-cast units shall be stored, transported and placed in position in such a manner that these are not damaged.

6 SANITARY INSTALLATIONS, WATER SUPPLY AND DRAINAGE

6.1 The work of water supply and sanitary installations shall be got executed by the agency as approved by Engineer-in-Charge.

- (i) The entire plumbing drawing and sanitary installation drawing/ details shall be submitted by the contractor and got approved by the Engineer-in-Charge before the execution.
 - (ii) The entire responsibility for the quality of work will however rest with the building contractor only.
- 6.2** The work of water supply, internal sanitary installations and drainage etc. shall be carried out as per the bylaws of the Municipal Corporation or any other local body and the contractor shall produce necessary completion certificates from such authority after completion of work if required.
- 6.3** All water tanks, taps, sanitary, water supply and drainage pipes fittings and accessories etc. shall conform to the bylaws and specifications of the Municipal Body/Corporation where CPWD specifications are not available.
- 6.4** The contractor shall engage licensed plumbers for the work and the materials (fixtures/fittings) tested by the local Municipal Body/Corporation wherever required at his own cost. Nothing extra shall be paid/reimbursed for the same.
- 6.5** The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted by making his own arrangements for water supply, electricity etc. and nothing extra whatsoever shall be payable for the same.
- 6.6** The work in general shall be carried out as per CPWD specifications. Rate includes all materials, labour and all the operations mentioned in the respective items unless and otherwise specifically mentioned.
- 6.7** The contractor shall be responsible for all the protection of sanitary, water supply fittings and fixtures against pilferage and breakage during the period of installation until the completion / handing over of the work.
- 6.8** The contractor shall submit completion plans for water supply internal sanitary installations and building drainage work within thirty days of the date of completion. These plans are to be submitted on drawings prepared preferably through computers (1 original copy + 3 photocopies) on suitable scales to show the general arrangement and desired details.
- 6.8** The chasing, cutting and making holes in the masonry and / or cement concrete and / or RCC works shall be done carefully without causing any damage to the structure. As far as possible, mechanical cutters & core cutting machines shall be used in a workman like manner, for concealing the pipelines and fittings. The chases / holes, so made, shall be made good with the cement mortar of mix 1:4 (1 cement: 4 coarse sand) after testing of the pipe lines for leakage. The cost of cutting cores in RCC, cutting holes in masonry & making good the same shall be inclusive in the respective item of drainage / water supply lines.
- 7 Source of Materials:**
- 7.1** All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries or any other source to be got approved by the Engineer-in-charge.
- 7.2** Coarse sand should be obtained from approved quarries or any other source to be got approved by the Engineer-in-charge and screened as required. The same shall be clean and sharp angular grit type. If the sand brought to site is dirty it must be washed in clean water.

7.3 Fine sand should be obtained from approved quarries any other source to be got approved by the Engineer-in-charge and screened as required. The same shall be clean and sharp angular grit type. If the sand brought to site is dirty it must be washed in clean water.

8. **Particular specification for Concrete and RCC Work**

8.1 General:

- i. The work in general shall be carried out as per the CPWD specifications.
- ii. All nominal concrete used at site shall be machine mixed at site.
- iii. Design mix concrete from fully automatic computerized concrete batching and mixing plant.

8.2 Proportioning Concrete:

8.2.1 In proportioning cement concrete, the quantity of both cement and aggregates shall be determined by weight. The cement shall be weighed separately from the aggregates. Water shall either be measured by volume in calibrated tanks or weighed. All measuring equipment shall be maintained in a clean and serviceable condition. The amount of mixing water shall be adjusted to compensate for moisture content in both coarse and fine aggregates. The moisture content of aggregates shall be determined in accordance with IS: 2386 (Part III). Suitable adjustments shall also be made in the weights of aggregates to allow for the variation in weight of aggregates due to variation in moisture content.

8.3 Production of Concrete:

8.3.1 The concrete shall be produced in a central batching and mixing plant with, computerized printing for contents and admixture dosage. The batching plant shall be fully automatic. Automatic batcher shall be charged by devices which, when actuated by a Single starter switch will automatically start the weighing operation of each material and stop automatically, when the designated weight of each material has been reached. The batching plant shall have automatic arrangement for dispensing the admixture and shall also be capable of discharging water in more than one stage. A print out from the batching plant for every lot shall be submitted. A batching plant essentially shall consist of the following components:

- a. Separate storage bins for different sizes of aggregates, silo for cement; and water storage tank.
- b. Batching equipment
- c. Mixers
- d. Control panels
- e. Mechanical material feeding and elevating arrangements
- f. Dust collector

8.3.2 The compartments of storage bins for aggregates shall be approximately of equal size. The cement compartment shall be centrally located in the batching plant. It shall be watertight and provided with necessary air vent, aeration fittings for proper flow of cement & emergency cement cut off gate. The aggregate and sand shall be charged by power operated centrally revolving chute. The entire plant from mixer floor upward shall be enclosed and insulated. The batch bins shall be constructed so as to by self- cleansing during drawdown. The batch bins shall in general conform to the requirements of IS: 4925.

8.3.3 WATER: a) Water to be used in manufacturing and curing of Concrete shall be tested before use. All such tests shall be submitted to the Engineer in charge for his approval before water is used in work.

8.3.4 Contractor shall identify the location of source of water intended to be used. Each such source of water shall be separately tested. In the event of a change in source of water all tests specified herein shall have to be repeated.

8.3.5 In the event of water is drawn from tube wells or open wells, water samples shall be for seasonal fluctuations in water table or at intervals to be directed by the Engineer-in-charge.
Water samples from each source shall be tested as under:

Test	Number of tests for each source
Acidity	3
Alkalinity	3
Presence of Solids	3

8.3.6 Mean values of the above tests shall be taken as the representative value and the acceptance criteria shall be based on these test results. All testing procedure and computation of test results shall conform to IS: 3025.

8.3.7 Approved quality water shall be collected and stored in the Under-Ground sumps/elevated tanks for the day-to-day requirement of work and same shall be used for all cement works and also for curing. Due care shall be taken in this regard.

8.3.8 If Government source of supply is nearby and made available to the contractor; the contractor may use that water and accordingly, charges of metered water consumption at the rate decided by the Engineer-in-Charge will be deducted from the bills payable to him. However, testing procedure & frequency & storage modalities will remain same. Whatever may be the source of water, adequate capacity for storage shall be made. If required, RO PLANTS of sufficient capacity shall be established at his own cost.

8.3.9 The batching equipment shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e., Water, cement, sand, individual size of coarse aggregates etc. The accuracy of the measuring devices shall fall within the following limits.

Measurement of Cement	±2% of the quantity of cement in each batch
Measurement of Mineral Admixture	±2% of the quantity of cement in each batch
Measurement of Water	±3% of the quantity of water in each batch
Measurement of Aggregate	±3% of the quantity of aggregate in each Batch
Measurement of Admixture	±3% of the quantity of admixture in each Batch

In a batching plant, the concrete production equipment shall be calibrated initially at the time of installation or reconditioning of the equipment and subsequently at the following intervals-

Mechanical/knife edge system: At least once in every two months. Electrical or load cell system: At least once in every three months.

NOTE: All ingredients of concrete shall be used by mass except water and admixtures which may be by volume.

8.3.10 It is important to maintain the water-cement ratio constant at its correct value. To this end, determination of moisture contents in both fine and coarse aggregates shall be made as frequently as possible, the frequency for a given job being determined by the engineer-in-charge according to weather conditions. The amount of the added water shall be adjusted to compensate for any observed variations in the moisture contents. For the determination of moisture content in the aggregates, IS 2386 (Part 3) may be referred to. Where batching plants are used, it is recommended to determine moisture content by moisture probes fitted to the batching plants. To allow for the variation in mass of aggregate due to variation in their moisture content, suitable adjustments in the masses of aggregates shall also be made.

8.4 **Mixing Concrete:**

The mixer in the batching plant shall be so arranged that mixing action in the mixers can be observed from the operator's station. The mixer shall be equipped with a mechanically or electrically operated timing, signaling and metering device which will indicate and assure completion of the required mixing period. The mixer shall have all other components as specified in IS: 4925.

8.5 **Transportation, Placing and Compaction of Concrete:**

Mixed concrete from the batching plant shall be transported to the point of placement by transit mixers or through concrete pumps or steel closed bottom buckets capable of carrying 0.6 cum concrete. In case the concrete is proposed to be transported by transit mixer, the mixer speed shall not be less than 4 rev/ min. of neither the drum nor greater than a speed resulting in a peripheral velocity of the drum as 70 m / minute at its largest diameter. The agitating speed of the agitator shall be not less than 2 rev / min. Nor more than 6 rev/ min. of the drum. The number of revolutions of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev / min. And the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirements shall conform to IS: 5892.

In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar / thick cement slurry through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump-receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.

Materials for pumped concrete shall be batched consistently and uniformly. Maximum size of aggregate shall not exceed one-third of the internal diameter of the pipe. Grading of aggregate shall be continuous and shall have sufficient ultra-fine materials (materials finer than 0.25mm). Proportion of fine aggregates passing through 0.25mm shall be between 15 & 30% and that passing through 0.125 mm sieve shall not be less than 5% of the total volume of aggregate. Suitability of concrete shall be through pumping shall be verified by trial mixes and by performing pumping tests.

8.6 **PREPARATION OF MIXES AS PER APPROVED DESIGN MIX AND CONDUCTING CONFIRMATORY TEST AT FIELD LAB:**

The contractor shall make the cubes of trial mixes as per approved Mix design at site laboratory for all grades, in presence of Engineer in charge using sample of approved materials proposed to be used in the work prior to commencement of concreting and get them tested in his presence to his entire satisfaction for 7 days and 28 days. Test cubes shall be taken from trial mixes as follows.

For each mix, a set of six cubes shall be made from each of the three consecutive batches. Three cubes from each set of six shall be tested at age of 7 days and remaining three cubes at age of 28 days. The cubes shall be made, cured, transported and tested strictly in accordance with specifications. The average strength of nine cubes at age of 28 days shall exceed the specified target mean strength for which design mix has been approved, the evaluation of test results will be done as per IS: 456-2000.

8.7 Ultrasonic Pulse Velocity Method of Test for RCC:

The underlying principle of assessing the quality of concrete is that comparatively higher velocities are obtained when the quality of concrete in terms of density, homogeneity and uniformity is good. The consistency of the concrete as regards its general quality gets established. In case of poorer quality lower velocities are obtained. If there are cracks, voids or flaws inside the concrete which come in the way of transmission of pulse, lower velocities are obtained.

The quality of concrete in terms of uniformity, incidence or absence of internal flaws, cracks and segregation etc. Indicative of the level of workmanship employed, can thus be assessed using the guidance given in table below, which have been evolved for characterizing the quality concrete in structure in term of the ultrasonic pulse velocity.

Velocity criterion for Concrete Quality Grading.

Sl. No.	Pulse velocity by Cross Probing (km/sec)	Concrete Quality Grading
1	Above 4.5	Excellent
2	4.5 to 3.5	Good
3	3.5 to 3.0	Medium
4	Below 3.0	Doubtful

Note: In Case of “doubtful” quality it may be necessary to carry further tests.

Pulse velocity method of test of concrete is to be conducted as a routine test. The acceptance criteria as per the above table will be applicable which is as per IS 13311 (part-1): 1992. From the above “Good” and “Excellent” grading are acceptable and below these grading the concrete will not be acceptable.

All RCC Columns and 5% of the other of RCC members in each category i.e., Beam, column, slab and footing may be tested by UPV test method for establishing quality of concrete. It is suggested that test be conducted on RCC beam near joint with column, on RCC column near joint with beam, on RCC footings and rafts. On RCC rafts a suitable grid can be worked out for determining number of tests. In addition, doubtful areas such as honeycombed locations, locations, where continuous seepage is observed, construction joints and visible loose pockets will also be tested.

The test results are to be examined in view of the above acceptance criteria “Good” and “Excellent” and wherever concrete is found with less than required quality as per acceptance criteria, repairs to concrete will be made. Honeycombed areas and loose pockets will be repaired by grouting using Portland Cement Mortar/Polymer Modified Cement Mortar /Epoxy Mortar, etc. After chipping loose concrete in appropriate manner. In areas where concrete is found below acceptance criteria and defects are not apparently visible on surface, injecting approved grout in appropriate proportion using epoxy grout /acrylic Polymer modified cements slurry made with shrinkage compensating cement / plain cement slurry etc. will be resorted to for repairs. Repairs to concrete will be done till satisfactory results are obtained as per the acceptance criteria by retesting of the repaired area. If satisfactory results are not obtained dismantling and relaying of concrete will be done.

9. **Unless otherwise specified, CPWD specifications 2019 volume I & II with up-to-date correction slips and shall be followed in general. Any additional item of work if taken up subsequently, shall also conform to the relevant CPWD specifications, mentioned above, should there be any difference between description of items as given in the schedule of quantities, nomenclature and specifications for individual items of work (special conditions) and I. S. Codes, work shall be got done in the following order of precedence.**

- i) Description of items as given in Schedule of quantities
- ii) Particular specifications
- iii) Special conditions
- iv) Additional Conditions
- v) Tender drawings attached
- vi) CPWD Specifications
- vii) General Conditions of Contract for CPWD works
- viii) I. S. Codes
- ix) National Building code.
- x) ASTM, BS, or other foreign origin code mentioned in tender document
- xi) Decision of Engineer-in-Charge
- xii) Sound Engineering practices or well-established local construction practices.

9.1 In case of item not covered by the CPWD specifications referred to above, or particular specification attached, reference shall be made to appropriate latest I. S. Codes and the decision of the Engineer-in-Charge shall be final and binding on the contractor.

9.2 Wherever any reference to any Indian standard Specifications occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, up to the date of receipt of tender.

9.3 Unless otherwise specified in the schedule of quantities, the rates for all items of work shall be considered, as inclusive of pumping out or balling out water, if required for which no extra payment will be made. This will include water encountered from any source such as rains, floods, sub soil water table being high and / or due to any other cause whatsoever.

9.4 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).

10.0 The following modifications to the above specifications and some additions specifications shall however apply.

10.1 All stone aggregate and stone ballast shall be hard stone variety obtained from source to be got approved by the Engineer-in-Charge.

- 10.2 Coarse/fine sand obtained from source to be got approved by the Engineer-in-Charge and screened as required. The same shall be clean and sharp angular grit type. If the sand brought to site is dirty it must be washed with clean water.
- 10.3 For structural repair work where quartz sand is specified, coarse grained quartz sand shall be used in jacketing work whereas graded quartz sand shall be used for preparation of in situ polymer modified cement mortar.
- 10.4 Bricks shall be of crushing strength not less than 35 kg/sq.cm. The average water absorption of bricks when immersed in water for 24 hours shall not be more than 20% of the dry weight.
- 10.5 Cast iron pipes and fittings without ear shall be used. However, pipes and fittings with ears may be accepted without any extra payment. In such cases, clamps are not required for fixing and no extra payment will be made for fixing the pipes.
- 10.6 The rates for all items of work, shall unless clearly specified otherwise, include cost of all labour, materials, scaffolding and other inputs involved in the execution of the item at all floors and heights.
- 10.7 To avoid displacement of bars in any direction and to ensure proper cover only factory-made round type cover blocks as approved by Engineer-in-charge should be used for RCC works. Nothing extra shall be paid for this.

11.0 EMBEDDING OF PIPES, CONDUITS ETC.

- 11.1 The brickwork for the portions of the external wall of W.C. through which pipes are taken, will be done after the pipes are fixed as far as practicable.
- 11.2 All crossings, embedment etc. in walls and floors for water supply, drainage and sanitary pipes, fittings etc. shall be provided as per previously prepared detailed drawings for individual walls and floors so as to avoid cuttings of brick works and floors. All such areas shall be made good during finishing and nothing extra shall be paid for this.

12.0 WATER SUPPLY, SANITARY FITTINGS, PAINTS & OTHER MATERIALS.

- 12.1 Sanitary fittings, paints and other materials shall be obtained from one of the firms on the list of approved manufactures of CPWD, and/or shall bear I.S.I. mark.
- 12.2 All the material shall be tested as per provisions of CPWD Specifications Vol. I & II and the relevant I. S. codes. If there is any difference between acceptance CRITERIA given in I.S. codes, CPWD specifications and special conditions, the acceptance CRITERIA shall be in the following order of precedence.
1. Special conditions
 2. CPWD Specifications
 3. B. I. S. codes

12.3 The Contractor's rate for the items involving the use of materials shall be deemed to cover the cost of samples consumed in testing. The cost of packing, sealing, transportation, loading, unloading etc. shall be borne by the contractor. Testing charges borne by the department only when the samples satisfy the provision specified and conform to the requirements of the relevant specification. If the results show that the samples do not satisfy the relevant specifications, the testing shall be borne by the contractor.

12.4 As far as practicable no water supply/drainage pipes and fittings shall be fixed to RCC columns, beams etc. unless such a layout is approved by the Engineer-in-Charge. In such case, the SCI pipe and G. I. pipe wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs and nothing extra shall be paid for this.

13.0 TECHNICAL SPECIFICATIONS OF UPVC WINDOWS:

Providing and Fixing wooden finish (walnut) with brown base uPVC doors & windows. Company must have own production facilities (extrusion & fabrication) in India & control the entire cycle from Extrusion to Installation to Post Sales Service. Profile frame of high impact modified grade uPVC twin sash openable window of 118 mm x 58 mm outer frame with Glass Sash of 65mmx 80mm & bug sash of 49.6mm x 82mm, open able panel should be easy clean type hinges with SS black mesh, wall thickness of profile must be min 1.8 ± 0.3 mm, which shall be manufactured from Tropicalized Blend with required additives.

There would be sufficient space on outer frame in between the Glass & bug sash to place the Grill on outer frame. Supply of Grills will not be in window's manufacturer scope, however manufacturer must be provided grill blocks to fix the grill. Profile must be colorfast. The profile sections should have multi hollow (min 2 to 3 chambers) chamber to include GI reinforcement with 120 GSM zinc coated, fitted in continuous length, in closed chamber. The thickness of GI should be selected to meet the wind load requirement as per IS 875- Part III on sash/mullion. Minimum steel reinforcement thickness of 1.5mm to 2.5mm. UPVC Windows & Doors must be fabricated with fusion welded corners & must conform to the strength requirements based on wind load as per IS 875-Part III. All hardware fitted must be of stainless steel, Glass should be double glazed (6T+12+6T) mm clear toughened with weather seal (EPDM/TPE).

There would be Warranty of 20 years on Profile & five year on hardware from the date of installation. UPVC windows must be installed by profile manufacturer only to ensure the installation quality and product life. Manufacturer must be experienced to supply & self-installation of uPVC windows/ventilators for any IIT & IIM institute of similar quantum (Supporting documents or Order copy of min value 2.5 Cr must be shown/submitted before finalize the order).

Design of windows must be as per enclosed design sheet or drawing and should be approved by the CPWD before order finalization. Installation: There should be 300-350 mm gap between the each

fastener for installation. Fame fastener M8x100mm type to be used; masking tape must be use during the filling of silicon to make it clean and even surface. For proper insulation PU foam must be provided. Final alignment and operation of windows to be checked by the contractor before handover to the client department.

Note: Structural design proof checked from a Government Engineering Institute, to be provided by the manufacturer for:

- (i) Sites with basic wind speed > 45 m/sec as per IS 875 – Part 3
- (ii) Sites with structure height more than 20m for all wind speeds

SPECIAL CONDITIONS

- 1.0 The contractor will have to work according to the program of work, decided by the Engineer-in-charge for which purpose the contractor should submit a tentative program of the work within one month from the date of start of the work. The contractor shall also construct a sample unit, complete, in all respects within time specified by the Engineer-in-Charge and this sample unit shall be got approved from the Engineer-in-charge before mass construction is taken up. No extra claim whatsoever beyond the payments due at agreement rates will be entertained from the contractor on this account.
- 2.0 The contractor shall take instructions from the Engineer in charge for stacking of materials in any place. No excavated earth or building material shall be stacked on areas where other buildings, roads, services or compound walls are to be constructed.
- 3.0 If as per municipal rules the huts for labour are not to be erected at the site of work, the contractors are required to provide such accommodation as is acceptable to local bodies and nothing extra shall be paid on this account.
- 4.0 The work on items of internal finishing must be started as soon as the structure of two floors is completed.
- 5.0 Unless otherwise provided in the Schedule of quantities / CPWD specification 2019 the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.
- 6.0 The work shall be carried out in accordance with the architectural drawings and structural drawings. The structural and architectural drawings shall have to be properly correlated before executing the work. In case of any differences noticed between architectural and structural drawings, final decision, in writing of the Engineer-in-charge shall be obtained by the contractor. In case of any discrepancy between the nomenclature of item given in the schedule of quantities appended with the tender and architectural drawings related to the relevant items, the former shall prevail unless and otherwise given in writing by the Engineer-in-charge. Samples shall be prepared before starting particular items of work for prior approval of the Engineer-in-Charge and nothing extra will be payable on this account.
- 7.0 All the material to be used on works shall bear ISI certification mark unless otherwise the make is specified in the item or special conditions appended with this tender document. In case ISI marked materials or the materials mentioned in the tender documents are not available as per opinion of Engineer-in-Charge, which shall be final and binding, the material to be used shall conform to CPWD Specifications applicable in this tender or IS code. In such cases Engineer-in-Charge shall satisfy himself about the quality of such materials and give his approval in writing. Only articles classified, as first quality by the manufacturers shall be used unless otherwise specified. All material not having ISI mark shall be tested as per relevant CPWD / ISI specification.
The Engineer-in-Charge may relax the condition regarding testing if the quantity of the materials required for the work is very small. In all cases of use of ISI marked materials proper proof of procurement of materials from authentic manufacturers shall be provided by the contractor to the entire satisfaction of Engineer-in-Charge.
- 8.0 All materials equivalent to the one specified should be got approved by the Engineer-in-Charge before using the said materials in the work.

- 9.0 For form work use of solid timber and products involving solid timber shall not be permitted. Specifications for steel centering, shuttering and formwork shall be followed as per para 5.2 and its sub paras of CPWD specifications 2019.
- 10.0 The contractor shall be responsible for the protection of sanitary and water supply fittings and fixtures against pilferage and breakage during the period of installation and thereafter until the building is handed over.
- 11.0 Any damage to work resulting from rains or from any other cause until the work is taken over by Department after completion of work shall be made good by the contractor at his own cost.
- 12.0 Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/ instructions and nothing extra shall be payable on this account.
- 13.0 The contractor shall comply with the provision of any Government acts, which relate to the work and to the regulations and laws of any local authorities. The contractor shall give all notices required by the said Acts, laws etc. and pay all fees payable to such authorities and allow for those contingencies, cost of restorations etc. and all other fees payable to the local authorities.
Water and sewerage charges for execution of the work shall be payable by the contractor directly to the local bodies under intimation to the department. In case such charges are not paid by the contractor, the same shall be recovered from the bill for remittance or if already remitted to the local bodies.
- 14.0 Tendered rates are inclusive of all taxes and levies payable under the respective statutes.
Rates quoted shall be inclusive of the Sales Tax/Turnover tax GST as leviable by the State Governments on the transfer of property in goods involved in the execution of works contract and nothing extra will be payable on that account.
- 15.0 The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
- 16.0 The tenderer should not quote unnecessary conditions contradicting the general conditions and particular specifications given in this tender, as such conditions apart from being not agreed to can lead to rejection of the tender.

17.0 BRIEF WORDING OF ITEMS

- 17.1 For the purpose of recording measurements and preparing running account bills, the underlined portions of the nomenclature of items included in the Schedule of Quantities shall be adopted as the abbreviated nomenclature of the particular item. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant item in the agreement and relevant specifications. In the case of items for which abbreviated nomenclature is not indicated in the Schedule of quantities, the full nomenclature shall be reproduced while recording measurements and preparing the bills.

Also following abbreviations may be adopted.

(A)	P/L for	:	Providing and Laying.
(B)	P/F for	:	Providing and Fixing.
(C)	C.C. for	:	Cement Concrete.
(D)	C.M. for	:	Cement Mortar.

- 17.2 In case of extra/substituted items of work for which brief wording is not provided in the agreement, the full nomenclature of the item shall be reproduced in the measurement books and bill forms of running account bills.
- 17.3 The full nomenclature of the items shall be adopted in preparing abstract of final bill in the measurement books and also in the forms for final bills.

18.0 Water proofing treatment

The work of Waterproofing treatment shall be executed through specialized agency(s) meeting the eligibility requirements mentioned in table elsewhere in the agreement. The bidder shall submit details of such agency(s) as given below to the Engineer-in-charge at least one month in advance from taking the work.

1. Name of Firm
2. List of works as given in table elsewhere in the agreement
3. Performance certificate from the Client
4. Availability of manpower and machineries

18.1 GUARANTEE FOR WATER PROOFING TREATMENT

10 (Ten) years guarantee in prescribed proforma attached must be give by the contractor for the water proofing treatment. In addition, 10 (ten percent) of the cost of these items would be retained as guarantee to watch the performance of the work executed. However, half of this amount (withheld) would be **released after five monsoon** seasons after the completion of the work if the performance of the water proofing work done is satisfactory. If any defect is noticed during the guarantee period it should be rectified by the contractor within seven days and, if not attended to, the same shall be got done by other agency at the risk and cost of the contractor. In any case the guaranteeing firms during the guarantee period should inspect and examine the treatment once in every year and make good any defect observed. However, the security deposit can be released in full, if bank guarantee of equivalent amount for 10 (Ten) years is produced and deposited with the department.

19 VARIATIONS IN CONSUMPTION OF MATERIALS

- 19.1 The variation in consumption of material shall be governed as per CPWD specification and clauses of the contract to the extent applicable. The following specific clauses shall govern the variation in consumption of pig lead.
- 19.2 The pig lead for caulking of joints of SCI pipes shall be issued as per theoretical consumption for SCI pipes of size 100mm, 75mm, 50mm at 0.98 Kg, 0.88 kg. and 0.77 Kg. per joint respectively. Over and above the theoretical quantities of lead as worked out a variation of 5% shall be allowed for wastage etc. Any difference between the actual consumption of pig lead and theoretical consumption worked out on the above basis including the authorized variation if not returned by the contractor shall be recovered at the rate mentioned under schedule "F". Where the pig lead is arranged by the contractor, variation of + 5% be allowed. In case the variation is on the lower side, the quantity of the pig lead less used shall be recovered from the contractor at market rate to be determined by the Engineer-in-Charge whose decision in the matter shall be final and binding.
- 19.3 The theoretical quantity of cement to be utilized in items of concrete involving use of single aggregate and mixed by volume batching shall be computed on the basis of the co-efficient for cement to be used in different items of the work provided in the DSR 2021 after reducing each of the co-efficient

by 5%. However, where the concrete is mixed by weight batching no such reduction shall be made from the theoretical co-efficient given in DSR 2021 for concrete with crushed stone aggregate.

20 MATERIALS OBTAINED FROM DISMANTLEMENT

The contractors in course of their work, should understand that all materials (e.g. stone and other materials) obtained in the work of dismantling, excavation etc. will be considered Government property and may be issued to the contractor if required for use in this work at rates approved by the S.E.

21 MATERIALS BROUGHT BY THE CONTRACTOR.

The contractor shall have to deposit the approved paints of required colour and shade as per actual requirements of the work to be done, with the Engineer-in-Charge at his departmental stores at the site of work.

The paint will be issued to the contractor from time to time according to his requirements for the work in the same manner as the issue of materials stipulated to be issued departmentally.

Similar procedure shall be followed for water proofing compound.

The day-to-day receipt and issue quantity account of water proofing compound, paints etc. shall be maintained by the Junior Engineer and signed daily by the contractor or his authorized agent.

Empty containers shall be not removed without the written permission of the Engineer-in- charge.

22 TESTING OF MATERIALS

The contractor shall procure all the materials in advance so that there is sufficient time for testing and approving of the material and clearance of the same before use in the work.

The contractors rates for the items involving the use of materials shall be deemed to cover the cost of samples, the cost of packaging, sealing, transportation, loading, unloading etc. shall be borne by the contractor, Testing charges shall be borne by the Department only when the samples satisfy the provisions specified & conform to the requirements of the relevant specifications. If the results show that the samples do not satisfy the relevant specifications, the testing charges shall be borne by the contractor.

In case of concrete and reinforced concrete work, the contractor shall be required to make arrangement for carrying out comprehensive strength tests at his own cost. He shall render all assistance for the preparation of cubes, safe custody of the same, proper curing and carriage up to the laboratory where the test is to be performed: the cubes tests can be performed at any laboratory approved by the Engineer – in – charge.

23 The contractor shall make his own arrangements for obtaining electric connections, if required and make necessary payments directly to the department concerned.

24 If other agencies will also be executing simultaneously the works like electrification, horticulture or external services and other building works for the same project along with this work in particular, the contractor shall afford necessary facilities for the same. No claim in this respect shall be entertained. The contractor shall leave such necessary holes, opening etc. for laying/burying in the work, pipes, cables, conduits, clamps, boxes and hook for fan clamps etc. as may be required for electric, sanitary, air Conditioning, fire-fighting P.A. system telephone system C.C.T.V. system etc. and nothing shall be paid for the same. Conduits for electrical wiring/cables will be laid in such a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rate shall be paid for the same.

- 25 Any cement slurry if added over base surface (or for continuation of concreting) for bond, Its cost shall be deemed to have been included in the respective items, unless otherwise, explicitly stated, and nothing extra shall be payable nor extra cement considered in the cement consumption on this account.
- 26 The contractor shall take proper care during dismantling operations if any to ensure that there is no danger/damage to any adjoining/existing structures and in case of any damage the contractor shall re-do the work/do the necessary repairs as per direction of the Engineer-in-Charge for which no claim would be entertained by the department.
- 27 The work shall be carried out in manner complying in all respects with the requirement of relevant byelaws of the local Municipal Corporation of the local body whatsoever.
- 28 a) The contractor shall put necessary boards on display forbidding the residents/public from approaching the building under repair to avoid any accident.
b) The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution-boards. They shall be responsible for all damages and accidents caused due to negligence on their part.
- 29 All incidental charges of any kind including cartage, storage cutting and wastage and safe custody of materials etc. (not covered under any other condition) shall be borne exclusively by the contractor and nothing extra shall be payable to them on this account.
- 30 Materials procured for the work such as epoxy resins, hardeners, polymers, rust remover compounds etc. as specified in the nomenclature of items shall be deposited with the Engineer-in-Charge and got issued on day to day basis based on the consumption/requirements for the work. The watch & ward of such materials shall, however, remain to be responsibility of the contractor and no claim on this account shall be entertained.
- 31 Storage and watch & ward of construction material will be the responsibility of the contractor. However, necessary storage space for the same would be made available at site during the execution of the work.
- 32 The contractor shall progress on different fronts simultaneously as much as possible and practicable.
- 33 All the service connection like storm water drains, sewer connections and water supply connections to be obtained from the local body (ies) for which no separate payment is payable.

SPECIAL CONDITIONS FOR CEMENT

- 1) The contractor shall procure 43 grade) ordinary Portland cement (confirming to IS 8112) as required in the work, from reputed manufacturers of cement such as ACC, Ultra Tech, Ambuja, Shri Cement, Birla J & K & cement Corporation of India as approved by the Ministry of Industry, Government of India, and holding license to use ISI certification mark for their product or from any other reputed cement manufacturers having a production capacity not less than one million tones or more per annum as approved by SDG of region. The tenderers may also submit a list of names of cement manufactures which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacture (s) which the tenderer propose to use in the work. No change in the tender rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.
The supply of cement shall be taken 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. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected, and it shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.
- 2) The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer-in-charge.
The cement go-down of the capacity to store a minimum of 2000 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.
- 3) Double lock provision shall be made to the door of the cement go-down. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement go-down. The contractor shall facilitate the inspection of the cement go-down by the Engineer-in-charge at any time.
- 4) The cement shall be got tested by the Engineer-in-charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The cost of tests shall be borne by the contractor/Department in the manner indicated below:
(a) By the contractor, if the results show that the cement does not conform to relevant BIS codes.
(b) By the Department, if the results show that the cement conforms to relevant BIS codes.
- 5) The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment needs to made.
- 6) The cement brought to the site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-charge.
- 7) The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.
The SDG may change the brand of Cement depending upon availability in local market, if needed. Instructions in this respect can be issued by them at regular intervals. The name of manufacturers should be finalized after taking into consideration the suggestions of contractors during Prebid meeting, if any.
Similar conditions for cement of other types like slag cement etc. may be incorporated wherever required by the NIT approving authority by providing for relevant BIS Codes, suitable brands of cement and technical circulars issued by the department.

SPECIAL CONDITIONS FOR STEEL REINFORCEMENT BARS

- 1 The CPWD/ Contractor shall/ procure only ISI marked TMT corrosion resistant steel (CRS) reinforcement bar (TMT bar of Fe 500D grade or more) from the Steel Manufacturers such as SAIL, TATA Steel Ltd., RINL, Jindal Steel & Power Ltd. and JSW Steel Ltd. Or their authorized dealers having valid BIS license for IS: 1786-2008 (Amendment-1 November 2012)

1(a). The procured steel should have following qualities:

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

1(b). Selection Criteria of steel manufacturers

(I)The supply of reinforcement steel for all CPWD works should have following selection criteria of steel manufacturers: -

Steel producers of any capacity using iron ore/ processed iron ore as the basic raw material adopting advanced refining technologies as given here under.

(i) DRI-EAF = Direct Reduced iron – Electric arc furnace.

or

(ii) BF-BOF = Blast furnace – Basic oxygen furnace

or

(iii) COREX-BOF = COREX - Basic oxygen furnace

For production of liquid steel to finish product at single / multiple locations with NABL or any other similarly placed accrediting Government body which operates in accordance with ISO/IEC17011 and accredits labs as per ISO/IEC 17025 conforming to IS: 1786 - 2008 (Amendment –1 November 2012).

The check list for incorporation of any quality steel producer is enclosed for technical assessment is given in Annexure -1.

Chief Engineer CSQ (Civil) unit, Directorate of CPWD shall approve the steel manufactures.

- 2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work
- 3 Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in relevant BIS codes. 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.
- 4 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as directed by the Engineer-in-charge.

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

- 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.
- 8 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained. 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 of actual consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment need to be made.
- 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.

Annexure I
Special Condition for steel
(Reference para 9)

Sl.	Item	Checkpoint	Remarks
1	Steel Producer having manufacturing facilities at plant	a. Factory address and Registration no.	
		b. Certificate of manufacturing process	
		c. Refining process of steel Producer	
		c.1 BF-BOF route	
		c.2 Corex – BOF route	
		c.3 DRI –EAF route	
		With documentary evidence either for BOF or EAF	
		d. Steel plant having infrastructure for producing sponge iron, billete and TMT Rebars	
		e. Production and Quality Flow Chart	
		f. Plant Evaluation and Process Verification	
		g. List of Plant & Machinery	
2	Established	Document verification for:	
		a. Govt. / PSU Approvals	
		b. Supply orders of TMT Re-bars in Govt. Projects (Minimum-5 years)	
		c. Verification of direct supply orders to any State/Central Govt. Department	
		d. User Certificate issued by any Govt. Department directly	
3	Indigenous	Documentary evidence like;	
		a. Certificate of Incorporation	
		b. Memorandum of Articles of Association	
		c. Credit rating of the company from CARE/CRISIL/ICRA should not be C/D grade (minimum last 3 year)	
	Reliable	a. Test Results from Govt. /NABL accredited laboratories	
		b. In-house testing facility for physical/Chemical tests (NABL accredited)	
4		d. Calibration Certificates	
		e. List of Lab Equipment's:	
		e.1 Spectrometer	

		e.2 Computerized UTM	
5	Use of Iron-Ore/Processes Iron are as basic raw materials	Verification of iron-Ore/Process iron ore invoices	
6	In-housing rolling facility	Plant verification to identify in-house rolling facilities, production of liquid steel & crude steel	
7	Licenses& Certificates	a. ISO 9001:2008 Certification	
		b. ISO 14001:2004 Certification	
		c. OHSAS 18001:2007 Certification	
		d.IS 1786:2008 (TMT Re-bars)	
		e.IS 2830:1992 (Billets)	
8	Product Range	TMT Re-bars FE 415/415D/500/500D/550/550D	
		CRS (Corrosion Resistant) & EQR (Earthquake Resistant) TMT Re-bars Size 8 to 36 mm dia	

Note: -

DRI-EAF-> Direct Reduce Iron-Electric ARC Furnace

BF-BOF-> Blast Furnace – Basic Oxygen Furnace

COREX-BOF-> COREX Furnace –Basic Oxygen Furnace

SPECIAL CONDITIONS FOR ALUMINIUM DOOR, WINDOW, VENTILATOR WORKS:

1.1. EXTENT AND INTENT:

- 1.1.1 The work shall be carried out through an approved specialized agency, who shall furnish all materials, labour, accessories, equipment, tool and plant and incidentals required for providing and installing aluminum doors, windows, claddings, louvers and other items as called for on the drawings. The specialized agency for the Aluminium work shall be got approved from the Engineer-in-charge, well before actual commencement of the item of work. Necessary performance certificates in respect of agencies proposed to be engaged shall be submitted within 30 days from the date of issue of acceptance letter to substantiate technical capability and experience of the agency for prior approval of the Engineer-in-charge.
- 1.1.2 The drawings and specifications cover the major requirement only. The supplying of additional fastenings, accessory features and other items not mentioned specifically herein, but which are necessary to make a complete installation shall be a part of this contract.

1.2. GENERAL:

- 1.2.1 Work shall be carried out as per CPWD Specifications- 2019 Vol. I & Vol. II with up to date correction slips.
- 1.2.2 Aluminium doors, windows etc. shall be of sizes, section details as shown on the drawings. The details shown on the drawings indicate generally the sizes of the components parts and general standards. These may be varied slightly to suit the standard adopted by the manufacturer. Before proceeding with any manufacturing, the contractor shall prepare and submit complete manufacturing and installation drawings for approval of the Engineer-in-Charge and no work shall be performed until the approval of these drawings is obtained.

1.3. SHOP DRAWINGS:

The contractor shall submit the shop drawings of doors, Windows, louvers, cladding and other aluminum work, based on architectural drawings, to the Engineer-in-Charge for his approval. The drawings shall show full size sections of doors, windows etc. thickness of metal (i.e. wall thickness), details of construction, sub frame/ rough ground profile, anchoring details, hardware as well as connection of windows, doors and other metal work to adjacent work. Samples of all joints and methods of fastening and joining shall be submitted to the Engineer-in-Charge for approval well in advance of commencing the work.

1.4. SAMPLES:

Samples of doors, windows, louvers etc. shall be fabricated, assembled and submitted to the Engineer-in-Charge for his approval. They shall be of sizes types etc. as decided by Engineer-inCharge. All samples shall be provided at the cost of the contractor.

1.5. SECTIONS:

Minimum doors and windows shall be fabricated from extruded section of profile as detailed on drawings. The sections shall be extruded by the manufacturers approved by the Engineer-in-charge. The aluminum extruded sections shall conform to relevant IS designation with chemical composition and

technical properties as per IS:733 and IS:1285. The permissible dimensional tolerance of the extruded sections shall be such as not to impair the proper and smooth function/ operation and appearance of doors and windows.

1.6. FABRICATION:

Doors, windows, etc. shall be fabricated to sizes as shown at factory and shall be of section, sizes combinations and details as shown in the Architectural Drawings. All doors, windows etc. shall have mechanical joints. All members shall be accurately machined and fitted to form hairline joints prior to assembly. The joint and accessories such as cleats, brackets, etc. shall be of such materials as not to cause any bimetallic action. The fabrication of doors, windows, etc. shall be done in suitable sections to facilitate easy transportation, handling and installation. Adequate provision shall be made in the door and window members for anchoring to support and fixing of hardware and other fixtures as approved by the Engineer-in-Charge.

1.7. ANODIZING:

Wherever specified, Aluminium sections shall be anodized as per IS:7088 and to required colour as specified in the item as per IS:1868 grading, after cutting the members to requisite sizes. Anodizing shall be to the specified grade with minimum average thickness of 15 microns when measured as per IS:6012. The anodic coating shall be properly sealed by steams or by boiling in deionized water or cold sealing process as per IS:1868 / IS:6057. Polythene tape protection shall be applied on the anodized sections before they are brought to site. All care shall be taken to ensure surface protection during transportation, storage at site and installation. The tape protection shall be removed on installation. The sample will be tested in the approved laboratory and cost of samples, cost of testing shall be borne by the contractor.

1.8. POWDER COATING:

All aluminum sections shall be powder coated 50 microns to required color as specified in the item and as per direction of Engineer-in-Charge. Polythene tape protection shall be applied on the powder coated section before they are brought to site. All care shall be taken to ensure surface protection during transportation, storage at site and installation. The tape protection shall be removed on installation. The samples will be tested in the approved laboratory and cost of samples, cost of testing, shall be borne by the contractor.

1.9. PROTECTION OF FINISH:

All aluminum members shall be wrapped with approved self-adhesive non- staining masking tapes.

1.10. HANDLING AND STACKING:

1.10.1 Fabricated materials shall be stacking in an approved manner to protect the material against any damage during transportation. The loading and unloading shall be carried out with utmost care, on receipt of materials at site, they shall be carefully examined to detect any damaged pieces. Arrangements shall be made for expeditious replacement of damaged piece/ parts. Materials found to be acceptable on inspections shall be repacked in crates and stored safely.

1.10.2 In the case of Composite windows and doors, the different units are to be assembled first. The assembled Composite units should be checked for line, level and plumb before final fixing is done. Units may be serial numbered and identified as how to be assembled in their final location of situation so warrants.

- 1.10.3 Where aluminum comes into contact with masonry brickwork, concrete, planter or dissimilar metals, it shall be coated with approved insulation lacquer, paint or plastic tape to ensure that electro- chemical corrosion is avoided. Insulation material shall be trimmed off to a clean flush line on completion.
- 1.10.4 The contractor shall be responsible for assembling Composite, bedding and filling the groove with backup roads polysulphide sealant inside and outside, placing the doors, windows etc. in their respective opening. After the doors/ windows have been fixed in their correct assigned position, the open hollow sections abutting masonry concrete shall be fitted with approved polysulphide sealant densely packed and neatly finished.
- 1.10.5 The contractor shall be responsible for doors, windows, etc. being set straight plumb, level and for their satisfactory operation after fixing is complete.

1.11 INSTALLATION

- 1.11.1 Just prior to installation the doors, windows etc. shall be uncrated and stacked on edge on level bearers and supported evenly. The frame shall be fixed into position true to line and level using adequate number of expansion machine bolts, anchor fasteners of approved size and manufacturer and in an approved manner. The holes in concrete/ masonry members for housing anchor bolts shall be drilled with an electric drill.
- 1.11.2 The doors, windows assembled as shown on drawings shall be placed in correct final position in this opening and marks made on concrete members at jambs, sills and heads against the holes provided in frames for anchoring. The frame shall then be removed from the opening and laid aside. Neat hole with parallel sides of appropriate size shall then be drilled in the concrete members with an electric drill at the marking to house the expansion bolts. The expansion bolts shall then be inserted in the holes, struck with a light hammer till the nuts is forced into the anchor shell. The frame shall then be placed in final position in the opening and anchored to the support through cadmium plated machine screws of required size threaded to expansion bolts. The frame shall be set in the opening by using wooden wedges at supported and bar plumbed in position. The wedges shall invariably be placed at meeting points of glazing bars and frames.

1.12 NEOPRENE GASKETS:

The contractor shall provide and install Neoprene gaskets of approved size and profile at all locations as shown and as called for to render the doors, windows etc. absolutely air tight and weather tight. The contractors shall produce samples of the gaskets for approval and procure after approval only.

1.13 FITTINGS:

Hinges, stays, handles, tower bolts, locks and other fittings shall be of excellent quality and manufacturers shall be approved by the Engineer-in-Charge.

1.14 MANUFACTURER'S ATTENDANCE:

The manufacturer immediately prior to the commencement of glazing shall adjust and set all windows and doors and accept responsibility for the satisfactory working of the opening frames.

1.15 Weather Silicone:

The gaps between frames and supports and also any gaps in the windows section shall be raked out as directed and filled with weather silicone cement of approved colour and make to ensure complete water tightness. The weather silicone shall be of such colour and Composition that it would not stain the masonry/ concrete work. The samples of weather silicone to be used for this purpose shall be got approved by the Engineer-in-Charge before its actual use.

1.16 SEALANT:

- 1.16.1 Use modified silicone for joint subject to movement and in glazing.
- 1.16.2 Surfaces to receive sealant shall be properly prepared, cleaned, primed and excess sealant removed from finished surfaces.
- 1.16.3 Sealed joints shall be neatly tooled and surfaces smoothed.
- 1.16.4 Follow the instruction of the sealant manufacturers.
- 1.16.5 Colour of the sealant shall be approved by the Engineer-in-Charge.

1.17 GLAZING:

- 1.17.1 Glazing shall generally be accomplished from the inside of building.
- 1.17.2 The glazing system shall be designed to this end use a continuous EPDM compression gasket on both sides (Present Gasket on one side of glazing pocket and roll in gasket on another side). A continuous wet seal shall be employed to ensure a complete water tightness.
- 1.17.3 Maintain a minimum glazing bite, edge clearance and surface clearance depending on the glass as recommended by the glass manufacturer.

1.18 Sealant and Gasket Application:

- 1.18.1 Sealant and gasket shall be provided wherever shown in the drawings or required for a permanently weather tight installation. The sealing mechanism is necessary but is not indicated, it shall be of type recommended by the sub- contractor and approved by the Engineer-in-Charge.
- 1.18.2 All adjoining surfaces shall be protected to receive sealant against staining by masking and/ or other methods.
- 1.18.3 Joints and joint surfaces shall be clean, dry, and free of any material that may have an adverse effect on the bonding and/ or seal of the sealant and gasket materials.
- 1.18.4 Apply sealant and gasket under the conditions recommended by the manufacturer(s). Prime all surface to receive sealant and gasket unless recommended otherwise, use no sealant that has started to set in its container or a sealant that has exceeded the self-life published by the manufacturer.
- 1.18.5 Fill all joints continuously and completely with sealant, forming a neat, uniform, concave bead. Finish the material flush with adjoining surfaces unless shown on the drawings. All sealant surfaces shall be tooled smooth.
- 1.18.6 Tensile or shear stress in structural silicone sealant joint shall not exceed 1.4 kg/ sqm.

1.19 PROTECTION & CLEANING:

1.19.1 The contractor shall adequately protect all components and accessories from damage during shipments, storage at job site, erection and after completion of the work. At such time as may be directed, the sub-contractor shall remove all protective tapes or coating, thoroughly clean all anodized aluminum and glass surfaces with suitable cleaning agent, make final adjustments to all ventilators, etc. and hardware leaving all in first class working order.

1.20 DETAILS OF TESTS

1.20.1 The various tests on aluminum sections shall be conducted in accordance with the relevant IS codes.

1.20.2 The samples of major member of each unit of doors/ windows shall be selected at random by Engineer-in-Charge as such that all the aluminum section be got tested.

1.20.3 The cost of samples, carriage or the samples and testing charges, if any, shall be borne by the contractor.

1.21 ACCEPTANCE CRITERIA:

The Aluminium sections shall conform to the provisions of the relevant items. For payment purpose only, actual weight of sections shall be taken into account. However, if the sectional weight of any Aluminium section is higher than the permissible variation then the weight payable shall be restricted to the weight of the section including permissible variation.

1.22 MEASUREMENT:

Payment by weight shall be made for Aluminium sections including beading only and all fixing angles cleats fittings and fixtures such as handles and hinges etc., shall not be included in the weight to be paid.

1.23 RATES:

The rates of the items shall include the cost of all materials, labors and inputs required.

SPECIAL CONDITION FOR STRUCTURAL GLAZING FACADES

The work of structural glazing hereinafter called the 'façade system' include aluminium framework with specially designed aluminium extrusions for frames, accessories and fixing of glass. The scope of work under the item façade system include: **For executing the structural glazing/ACP work, the contractor shall associate with/engage specialist agency/curtain wall fabricator as approved by the Engineer-in-charge.**

1. Design:

- a) The Aluminium frames shall be designed to conform to the following
 - 1) Wind loads as per IS 875 Part III re-affirmed 2003
 - 2) Deflection restriction of $L/175$ or max 19mm for a span of 4115mm or $L/240 + 6.35$ mm for spans greater than 4115mm.
 - 3) The mullions (vertical members) should not be less than 50mm wide x 125mm deep.
 - 4) The transoms (horizontal members) should not be less than 50mm wide x 130mm deep.
 - 5) Alloy grade 6061 T6 or 6063 T6 or EN AW-6060 (ALMgSi 0.5 F22) T66 in accordance with DIN EN 573, DIN EN 755 and extrusion tolerance in accordance with EN 12020-2.
- b) All fasteners to be 304 grade stainless steel.
- c) All anchor bracket design must be coordinated with civil reinforcement layouts.
- d) Structural calculations for frame, anchors and fasteners have to be prepared by a qualified structural engineer and shall be approved by the Engineer-in-charge.
- e) Shop drawings to be submitted for approval along with the structural calculations and shall be approved by the Engineer in charge.
- f) Tag drawings for the fabricated materials must be submitted to the Engineer for reference and verification.
- g) All materials are to be tested as per table enclosed.

2. Surface Protection:

All internal aluminium frames (mullion and transom) are to be polyester powder coated with a minimum of 60 microns thickness and conforming to AAMA 2604. All external exposed aluminium are to be coated with Kynar 500 XL or Hylar 5000 resin (polyvinylidene fluoride, PVDF) conforming to AAMA 2605. All steel anchor brackets are to be hot dip galvanized to IS2629. Page No. 48 of 74

3. Fabrication:

All mullions are to be prepared with "T" cleats in the factory. All transoms are to be stepped on both ends to overlap the mullion. 90° cut ends of the transom is not allowed. Inner glazing EPDM gaskets are to be installed in the transom. Shortening of gaskets before or after glazing would not be acceptable. All anchor brackets must be fabricated in the factory. Anchor brackets shall be aluminium alloy 6061/6063 or steel grade 836 and should be in compliance with the submitted structural calculations. All fabricated material must be tagged in accordance with the Tag drawings. For preparation of doors or vents, all fittings must be installed in the factory. If fittings from different suppliers are used then the Shop drawings are to be reviewed by each fitting supplier for conforming to their application instructions.

All aluminium sub frames bonded to glass should have corner cleats and must be Dark bronze anodized or Kynar coated (colour to be same as transom/mullion).

Glass should be bonded to sub frame in the factory under the bonding guidelines stipulated by structural sealant supplier. The sub frame must be assembled with aluminium corner cleats.

4. Mobilization:

All materials must be protected with low tack tape and securely fastened at the time of transport. All frames must be accompanied with a Tag ID and a tag drawing. Site storage and handling plan along with the schedule of deliveries are to be submitted for approval.

5. Installation:

A site survey has to be conducted prior to commencement of anchor bracket installation. All anchor brackets must be in accordance with the structural calculations. Any deviation from the approved structural calculations due to site changes or any other reason must have an approved supplemental structural calculation. Installation of anchor must be in accordance with approved shop drawings. Increase in shims for levelling beyond a thickness of 12mm should be accompanied with structural calculations for check on localized bending stress on anchor bolts. No drilling into reinforcement bar will be allowed. Pull out test for anchor bolts to the concrete structure is to be conducted prior to installation of Glazing on the frame.

All tolerances in floor slab/columns/beams/walls are to be absorbed in the anchor brackets.

All fasteners of anchor brackets to the mullion must be in A2 stainless steel. Glazing should commence only after inspection of alignment by the Engineer.

Install 2 number aluminium glass supports per glass unit at a distance of a minimum of 150mm from the centre of mullion to centre of glass support. This distance must not exceed $\frac{1}{4}$ of the mullion centre to centre. The distance used in the transom dead load structural calculation should match with site installation. Glass setting blocks should be 80 to 90 Shore A durometer hardness. Glass setting block should be of material compatible with the sealant used in the insulating glass or bonding of glass to sub frame.

EPDM gasket seal shall be provided between the transom and mullion at the overlap. Inner glazing EPDM gasket shall be installed on the mullions after cleaning of the mullions and transoms. All mullion/transom gasket intersection shall be sealed with EPDM compatible sealant.

A minimum of 3mm gap is to be present all-around glass. A minimum of 13mm glass bite is to be ensured. Glass should be held in place using temporary patch plates, minimum 100mm long. The glass unit with the sub frame should be fixed to the mullion using concealed mechanical cleats. The joint between the glass shall be sealed using a recessed silicone gasket held by a thermal break attached to the mullion. Along the transom the glass shall be held by aluminium pressure plate and EPDM gaskets. The cover cap shall be fixed to the pressure plate using snap fit mechanism.

6. Performance:

- a) Minimum class A2 of EN 12152 for air permeability
- b) Minimum class R7 of EN 12154 for water tightness
- c) Copy of test report from the manufacturer of the system for testing the air permeability and water tightness conducted in internationally recognized laboratory should be produced by the contractor.

Handover: The façade must be cleaned and inspected by the contractor prior to submission to the Engineer for final inspection. A snag list shall be prepared by the Engineer. All items in the snag list should be cleared by the due date mentioned in the snag list. As built drawings incorporating all approved changes done during the course of installation shall be submitted. A copy of the full set of approved structural calculations with all approved supplemental structural calculations shall also be submitted with the As-built drawings. Operations and Maintenance manual shall be submitted along with the As-built drawings.

7. PERFORMANCE GUARANTEE:

- a. The contractor shall be solely responsible for the design including shop drawing and performance of the installed structural glazing façade system. The installations shall be guaranteed by the contractor during the guarantee period for materials used, workmanship, water tightness (wherever specified), structural design, performance requirements and other requirements as given in the specifications. The contractor shall submit in the enclosed format a written guarantee for the same for a period of 10 years from the

date of completion of the work. In addition, the contractor shall obtain and submit to the Engineer-in-Charge a similar back-to-back guarantee for same duration from the specialist agency/structural glazing fabricator engaged by him/them.

- b. The design, fabrication, supply and installation of the system shall be to the best of national/international standards and shall be guaranteed to take the dead loads, wind and seismic loads, storms, air pollution, thermal stresses, building movements and the consequent deflections without compromising the performance characteristics. It shall be water tight, wherever specified and prevent ingress of water/moisture, pollutants etc. Further, the individual members of the structural framing shall be deflect beyond permissible limits as specified.
- c. In addition, guarantee for 10 years for all the material used for the structural glazing system and their performances shall be submitted by the contractor. Besides, the contractor shall obtain and submit similar back to back guarantees from the specialist agency/structural glazing fabricator and also from the manufacturers/suppliers/processors, as applicable, of various materials to the tune that they conform to the specifications and other criteria as specified herein for:
- (i) Glass (Single, laminated or IGUs) – substrate, coatings, lamination, assembly for IGU setc. and that regarding suitability of single soft coated glass in the spandrels Page No. 51 of 74.
 - (ii) Sealants – usage as per requirement of structural design and functional requirements, compatibility with different substrates and sealants, bite size, quality assurance during sealing of IGUs and fixing glass to glass and glass to the aluminium frame, etc.
 - (iv) EPDM/Silicone gasket – for ozone resistance and other properties are specified etc.
 - (v) Aluminium – material quality, tempering requirement, suitability of aluminium grade and anodizing etc.
 - (vi) Anchor fasteners – suitability and strength requirement as per manufacturers specifications etc.
- d. The contractor shall also submit guarantee in the enclosed format for replacement of glass during the guarantee period of 10 years from the date of completion of work. All the Guarantees shall be submitted before final payment is released after the date of the completion of work and shall not in any way limit any other rights which the Engineer in charge may have under the Contract.
- e. In addition, 2% (two percent) of the cost of all the items under this sub-head, as mentioned in the scope of work under para (1) above, shall be withheld from the bills towards guarantee as specified above. This amount to be withheld towards guarantee, shall be in addition to the other amounts to be withheld as mentioned elsewhere in the contract agreement. However, half of this amount (withheld) would be released after five years from the date of completion of the work, if the performance, as required, is satisfactory. The remaining withheld amount shall be released after 10 years from the date of completion of work, if the performance, as required, is satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within seven days of issue of notice to the contractor, at least temporarily, to the satisfaction of the Engineer-in-charge, till the permanent rectification of the defects/replacement of defective materials is carried out by the contractor, in maximum four months period. If not attended to, the same shall be got done by the Engineer-in-charge through other agency at the risk and cost of the contractor and the cost, which shall be final and binding on the contractor, shall be recovered from the amount withheld towards the guarantee as mentioned above or any other amount due to the contractor. In any case, during the guarantee period, the contractor along with specialist agency/curtainwall fabricator shall inspect and examine the work at least once in every year and make good any defects observed. The contractor shall submit a written certificate in this regard. A recovery of Rs.10, 000/- per year shall be made from the amount, withheld towards guarantee or any other amount due to the contractor, in event of not fulfilling this provision. However, the amount withheld as guarantee can be released in full, if irrevocable bank guarantee, from a Schedule/Nationalized Banks, of the same amount, for the guarantee period is submitted by the contractor to the Engineer-in-charge. The defects, if any, shall be rectified in a workmanlike manner, retaining the same aesthetics and other functional parameters of the original work.

SPECIAL CONDITIONS FOR EXTERIOR PAINTING WORKS

1. All purchase of paint shall be made directly from the manufacturers or their authorized dealers. The delivery challan shall be issued by the manufacturers store yard directly with full description of the work for which the purchases is being made. The condition shall be applicable for all forms of purchases being made. The condition shall be applicable for all from purchases for 100 litres or more in a work.
2. Guarantee for external finishing walls with smooth exterior paint.

The work of external wall finishing work as per item no..... shall be guaranteed for a period of **5 (five) years** as per enclosed guarantee bond against non-uniform coloring, flaking, workmanship and defective finishing. On notification by the Engineer- In - Charge of any, compliance to be performed under this guarantee by the contractor. The contractor shall immediately supply labour/ material and rectify all the defects notified by the Engineer - In -Charge to perform this guarantee at no additional cost and to ensure that the defects are fully rectified. In addition, extra **2 (Two) %** of the amount of the external finishing work as per item No.shall be withheld on this account which shall be refunded on expiry of the guarantee period if no defect is observed in the said period if the defects have been rectified pursuant to the agreement and to the entire satisfaction of the Engineer - In - Charge.

3. The materials shall be Premium Acrylic Smooth Exterior paint with silicone additives like
 - (a) Weather Coat All Guard of M/s Berger Paint India Ltd.
 - (b) Dulux – Weather Shield Max” of Akzonobel PPG Industries
 - (c) Apex Ultima of M/s Asian Paints.
4. The base for painting (Acrylic) be prepared by cleaning, scaling mosses etc. with wire brushes and cleaning with water etc. complete for which no extra payment shall be made.

SPECIAL CONDITIONS FOR FABRICATION OF STRUCTURAL STEEL TRUSS

1. The fabrication and erection work of structural trusses should be carried out by a specialised industrial fabricator having previous experience of fabrication and erection of trusses of large span.
2. The contractor shall submit shop drawings and method statement for fabrication and erection of trusses for approval from engineer in charge before start of work.
3. The Contractor shall arrange all necessary Machines/Cranes of required capacity for erection of trusses of large span.
4. The contractor shall take all necessary safety measures of his workman during erection of trusses. Department shall not be held responsible for any accident at site.

PARTICULAR SPECIFICATIONS FOR WATER PROOFING TREATMENT

1. WATER PROOFING TREATMENT

- 1.1 All the water proofing treatment shall be got executed through one of the specialized agencies as per the list of approved agencies attached with the tender. The water proofing agency shall carry out water proofing work with one of the approved water proofing compound mentioned in the tender. If so specifically requested by the contractor, he will be allowed to use other water proofing compound meeting various technical parameters, subject to prior approval of Engineer-in-Charge.
- 1.2 The work under this sub-head in general shall be carried out as per the CPWD specifications, as per the manufacturer's specifications, as per architectural drawings and as per directions of Engineer-in-Charge.
- 1.3 Ten years guarantee in prescribed proforma attached shall be given by the contractor for the water proofing treatment. In addition, 10% (ten percent) of the cost of these items of water proofing under this sub head shall be retained as guarantee amount to watch the performance of the work executed. However, half of this amount (withheld) would be released after five years from the date of completion of the work, if the performance of the waterproofing works is satisfactory. The remaining withheld amount shall be released after completion of ten years from the date of completion of work, if the performance of the waterproofing work is satisfactory. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days of issuing of notice by the Engineer-in-Charge / and, if not attended to, the same shall be got done by Engineer-in-Charge / through other agency at the risk and cost of the contractor and recovery shall be effected from the amount retained towards guarantee. The guarantee amount can be released in full, if bank guarantee of equivalent amount, valid for the duration of guarantee period, is produced and deposited with the Department.

ANNEXURE-IV

PROFORMA FOR MANDATORY TESTS TO BE ATTACHED WITH RUNNING BILLS

Name of the work:Name of contractor. Agreement.....
no. and date R/A Bill No.....

[illegible]

Note: If the number is less than that required, then reasons shall be recorded.

Signature of Junior Engineer

Signature of Assistant Engineer

Signature of Executive Engineer

LIST OF PREFERRED MAKES (Civil Work)

Note:

1. 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 specification as well as full details of the works executed by the specialized agencies, as specified.
2. Unless otherwise specified, the brand / make of the material as specified in the item nomenclature, in the particular specification and in the list of approved materials attached in the tender, shall be used in the work.
3. In case of non-availability of the brand specified in the contract the contractor shall be allowed to use alternate equivalent brand of the material subject to submission of documentary evidence of non-availability of the specified brand. The necessary cost adjustments on account of above change shall be made for the material.
4. The Engineer-In-Charge shall verify that manufacturers must have valid IS Certification as on date for materials wherever applicable.

The following brands shall be used if not otherwise mentioned in the items.

LIST OF PREFERRED MAKE / BRAND

MATERIALS	PREFERRED MAKE/ BRAND
ORDINARY PORTLAND CEMENT / PORTLAND POZZOLANA CEMENT	ULTRA TECH, A.C.C., AMBUJA, BIRLA, J.K. CEMENT, VIKRAM.
WHITE CEMENT / PUTTY	J.K., BIRLA, SAINT GOBAIN (WEBER)
REINFORCEMENT STEEL	TATA STEEL, SAIL, RINL, JINDAL STEEL & POWER LTD., JSW STEEL LTD.
PARALLEL THREADED COUPLERS	DEXTRA, G-TECH, SPPLICETEK, ISHITA
RE-BARRING CHEMICAL	HILTI, 3M INDIA, FISCHER
STRUCTURAL STEEL/TUBES	TATA STEEL, SAIL, RINL, JINDALJSPL, APL APOLLO VIZAG, JINDAL
PLASTICIZER, SUPER PLASTICIZER, ADMIXTURES, OTHER CONSTRUCTION CHEMICALS	MC BAUCHEMIE, SIKA, FOSROC, BASF, DR. FIXIT, CICO, ASIAN
CEMENT CONCRETE BLOCKS	CONWOOD, GURJARI, HINDUSTAN, LOK GROUP, SAI BLOCKS, VED PMC LTD., GODREJ
AAC BLOCKS	AEROCON, SIPOREX, ULTRA TECH, ECOLITE, GODREJ
ACC BLOCK ADHESIVE	ACC, ULTRA TECH, J.K., FERROUS CRETEM, BAL ENDURA, AEROCON, ARDEX ENDURA
POLYMER MODIFIED CEMENTITIOUS GROUT / TILE ADHESIVE	ARDEX ENDURA, LATECRETE, FOSROC, BASF, ACC, ECO GREEN.
LIST OF RMC PRODUCERS	A.C.C., ULTRA TECH, PRISM JOHNSON RMC, GODREJ, JSW, NUVOCO (LAFARGE)
WATERPROOFING COMPOUND	DOCTOR FIXIT (PIDILITE), BASF, CICO, SIKA, FOSROC, KRYTON, ASIAN LABORATORIES, MC BAUCHEMIE
WATER PROOFING BASE COAT	UNO, ASIAN, SIKA
SILICON BASED WATER REPELLENT/ WEATHER SEALANT	GE PLASTICS, DOW COMINGS, WACKER, BASF, PIDILITE

POLY-SULPHIDE SEALANT	FOSROC, PIDILITE, SIKA, BASF
PLYWOOD	ARCHID, KITPLY, GREEN PLY, CENTURY, REGENCY WOOD PANEL, KALPATARU.
FLUSH DOOR SHUTTERS	KENWOOD, ANCHOR, KUTTY, GREENPLY, ORIENT, KALPATARU
HIGH-PRESSURE LAMINATE	AICA(SUNMICA), MERINO, GREENLAM, CENTURY, ROYAL TOUCH, DURIAN, ANCHOR
METAL-FIRE RATED DOOR SHUTTERS	ADHUNIK TECHNOLOGY, GODREJ, SUKRITI, SHAKTI HORMANN, NAVAIR
FIRE RATED VISION PANELS	SAINTGOBAIN,PILKINGTON,SCHOTT, FERILITE, PYROGUARD
GLAZED FIRE DOOR	PROMAT,SAINT GOBAIN, GODREJ, SHAKTIMET, PACIFIC FIRE CONTROLS, NAVAIR
ROLLING SHUTTER WITH GRILLS	STANDARD,SWASTIK, SHUBDHWAR, SONA
ALUMINIUM EXTRUSIONS	HINDALCO,JINDAL
DASH FASTNERS	HILTI,FISHER, CANON
SS RAILING	KICH, GODREJ,ARCHWARE, HAFELE
SS HARDWARE AND ACCESSORIES FOR DOORS AND FIRE DOORS	DORMA, HAFELE, GEZE, KICH, ARCHWARE, OZONE
STAINLESS STEEL	SALEM STEEL, JINDAL OR EQUIVALENT
HARDWARE FOR KITCHEN CABINET, WARD ROBE AND SHELVES	GODREJ, EBCO, KAFF, SLEEK, HAFELE, DORMA
HERMITICALLY SEALED PERFORMANCE GLASS TOUGHENED GLASS, DGU	AUTHORIZED FABRICATORS OF MODI GUARD, SAINTGOBAIN, TATAASAHI, GLEVERBEL, PILKINGTON, HNG.
PARTICLE BOARD	ACTION TESA, GREENLAM, MERINO, KITPLY
MELAMINE POLISH	ASIAN PAINTS (MELAMYNE GOLD), PIDILITE INDUSTRIES (WUDFIN), AKZONOBEL PPG INDUSTRIES
CEMENT BASED WALL PUTTY	BIRLA WALL CARE, JK WHITE, BERGER, ASIAN PAINTS
OIL BOUND WASHABLE DISTEMPER / DRY DISTEMPER	ASIAN PAINT : (PROFESSIONAL ACRYLIC DISTEMPER), NEROLAC: BEAUTY ACRYLIC DISTEMPER BERGER: BISON ACRYLIC DISTEMPER
1ST QUALITY ACRYLIC DISTEMPER / DRY DISTEMPER	ASIAN PAINTS :(TRACTOR AQUA LOCK PAINT), BERGER: COMMANDO OR EQUIVALENT PAINTS OF NEROLAC OR
ACRYLIC EMULSION PAINTS	ASIAN PAINTS :(PROFESSIONAL PREMIUM INTERIOR EMULSION PAINTS), NEROLAC: BEAUTY GOLD BERGER: RANGOLI TOTAL CARE
PLASTIC EMULSION PAINT	ASIAN PAINTS:(APCOLITE HEAVY DUTY PREMIUM EMULSION PAINT), NEROLAC: IMPRESSION BERGER: EASY CLEAN
PREMIUM ACRYLIC EMULSION PAINTS (INTERIOR)	ASIAN PAINTS :(ROYAL LUXURY EMULSION), NEROLAC: IMPRESSION BERGER: SILK JENSON & NICHOLSON

TEXTURED EXTERIOR PAINT	ASIAN PAINTS, ULTRATECH TEXTURE PAINTS, UNITLE TEXTURES, RENOVO TEXTURES, ARMOURCOAT
ACRYLIC SMOOTH EXTERIOR PAINT	ASIAN PAINTS : (APEX/PROFESSIONAL PREMIUM EXTERIOR EMULSION), NEROLAC: XL BERGER: WEATHER COAT, PEARL, PEARL-ULTIMA (ADVANCE ANTI-ALGAL WEATHER PROOF PAINT)
PREMIUM ACRYLIC SMOOTH EXTERIOR PAINT WITH SILICON ADDITIVE	ASIAN PAINTS: APEX ULTIMA NEROLAC: XL TOTAL BERGER: WEATHER COAT ALL GUARD,
SYNTHETIC ENAMEL PAINT	ASIAN PAINTS: APCOLITE PREMIUM GLOSS ENAMEL, NEROLAC: SYNTHETIC HI GLOSS BERGER: LUXOL HI GLOSS
CEMENT PRIMER	NEROLAC, BERGER, BP WHITE (BERGER), DECOPRIME WT (ASIAN), WHITE PRIMER (AKZONOBEL PPG INDUSTRIES)
STEEL PRIMER (RED OXIDE ZINC CHROMATE PRIMER)	ASIAN PAINTS, BERGER, NEROLAC
WOOD PRIMER	ASIAN PAINT (WOOD PRIMER- WHITE/PINK), BERGER, NEROLAC
EPOXY PAINT	NEROLAC, ASIAN, BERGER, KANSAI AKZO NOBEL.
FIRE PAINT	ASIAN PAINTS, AKZONOBEL COATINGS INDIA LTD, PROMAT, JOTUN
GYPSUM PLASTER	GYPROC, ASIAN PAINTS, BIRLA, FERROUS CRETE, ULTRA TECH.
GYPSUM BOARD	SAINT GOBAIN, BORAL
CEMENT BASED READY MIX PLASTER	ULTRATECH, WALLPLAST, BUILDWELL, ACC.
EPDM GASKET	AMEE RUBBER INDUSTRIES PVT. LTD., BOHRA RUBBER, OSAKA
DASH / ANCHORING FASTENERS	HILTI, FISCHER, ARROW, KUNDAN, TRIXEL, WURTH
MORTICE LOCK	GODREJ, HARRISON
SPIDER FITTINGS	DORMA, HAFELE, GEZE
ALUMINIUM STRUCTURAL MEMBERS - WINDOWS, GLAZING AND PARTITIONS	HINDALCO, INDALCO, JINDAL ALUMINIUM LTD.
ALUMINUM B & R PANEL (ACP)	ALSTRONG, ALUCOBOND, ALUDECOR, EUROBOND
FLOOR SPRING/DEAD LOCK/DOOR CLOSERS/PANIC BAR	DORMA, GEZE, HAFELE.
ALL TYPE OF SILICONE	DOW CORNING, GE SILICON
METALLIC FALSE CEILING	KNAUF ARMSTRONG, HUNTER DOUGLAS, SAINT GOBAIN, DEXUNEINTERACH
ALUMINUM HALF ELLIPTICAL PROFILED LOUVERS	HUNTER DOUGLAS, CANTORI, DEZEEN
ALUMINUM QUADROCLAD HONEYCOMB FAÇADE SYSTEM WITH 25MM THICK PANELS	HUNTER DOUGLAS, CANTORI, DEZEEN

FLOOR & WALL TILES: CERAMIC / VETRIFIED TILES / ANTISKID / MATT / GLAZED	KAJARIA, JOHNSON, NITCO, SOMANY
CHEQUERED TILES, PAVER BLOCK & KERB STONE	SUPER TILES, HIND MOSAIC, KAJARIA, ULTRA DESIGNER TILE, NITCO, VITCO, VYAARA
VITRIFIED PAVER TILES	KAJARIA, PAVIT, JOHNSON, NITCO, VITCO.
CLEAR / FLOAT / FROSTED GLASS / MIRROR	ST. GOBAIN, MODIGUARD, ASAHI, PILKINGTON
VITREOUS CHINAWARE SANITARY WORK	HINDWARE, JAQUAR, KOHLER
BATHROOM ACCESSORIES (TOWEL RING, TOWEL RACK, SOAP DISH HOLDER, ETC)	CERA, JAGUAR, ARCHWARE, KICH, HINDWARE.
GULLY TRAPS(S.W.)	PERFECT, PARRY, CHERRY
PLASTIC SEAT WITH LID	PARRYWARE, HINDWARE, SEABIRD
SANITARY WARE	KOHLER, HINDWARE, JAQUAR.
WATER SUPPLY CP FITTINGS & ACCESSORIES	SIMPOLO, JAQUAR, KOHLER, ROCA, CERA
PVC WATER TANK	SINTEX, NATIONAL PLASTIC, KAVERI.
STAINLESS STEEL SINK	NIRALI, CERA, JAQUAR, NEELKANTHA, STAR, JAYNA, NIRALI
C P BRASS FITTINGS	JAQUAR, KOHLER, HINDWARE.
C P BRASS FLUSH VALVE	JAQUAR, ZOLOTO, LEADER.
GI PIPES	ZENITH / TATA / JINDAL, SURYA, ASIAN
GI FITTINGS	UNIK, ZOLOTO, AVR, R-BRAND
VALVES	ZOLOTO, SANT, KIRLOSKAR, LEADER
HDPE PIPE	RELIANCE, JAIN PIPES, ORIPLAST, SUPREME
DI PIPES AND FITTINGS	ELECTROSTEEL, KESORAM, JINDAL, TATA DUCTURA, NECO, KAPILANSH.
CENTRIFUGALLY CAST (SPUN) IRON PIPES & FITTINGS	NECO, KAPILANSH, SKF, BIC
HUBLESS CI PIPES & FITTINGS	NECO, KAPILANSH, SKF, SAINT GOBAIN
CI MANHOLE COVERS, FRAMES & GI GRATINGS	NECO, KAPILANSH, SKF
SFRC COVERS	KK SPUN PIPES, JAIN SPUN PIPES, SS INDUSTRIES
RCC PIPES	JAIN SPUN PIPES, LAKSHMI, SOOD&SOOD, PRAGATI, K.K. SPUN PIPE, THE INDIAN HUME PIPE CO.LTD., PATEL HUME PIPES.
UPVC / CPVC PIPE & FITTINGS	FINOLEX SUPREME, PRINCE, ASTRAL, ASHIRWAD, RAKSHA.
UPVC DOORS & WINDOWS (PROFILE MAKERS & THEIR AUTHORIZED FABRICATORS ONLY)	FENESTA, KOMMERLING, ALUPLAST
UPVC DOORS & WINDOWS HARDWARE	ROTTA, DORSET, KINLONG
FRP CHAJJA, FRP SHUTTERS & FRAME	FIBREWAYS, BHUTT FRP

ANODISED ALUMINIUM DOORS FITTINGS (ISI MARKED ONLY)	CLASSIC, SHALIMAR, PRESTIGE
PVC SHUTTERS & FRAME	RAJASHREE, PLASTIWOOD, ACCUCEL, DUROPLAST, POLYLINE, POLYWOOD, VIJAY DOORS.
STEEL DOOR / WINDOW FRAMES	AGEW, SENHARVIK, SHIV MULAR, STEEL PLAST
SBR COMPOUND (FOR REPAIR MORTAR & WATER PROOFING SLURRY)	MASTER EMACO SBR2 OF BASF, SIKA LATEX POWER, CICO LATEX SBR
ACRYLIC POLYMER FOR BOND COAT AND POLYMER MODIFIED MORTAR	ANUVI CHEMICAL, SUNANDA SPECIALTY COATING PVT. LTD,
RUST REMOVER	ANUVI CHEMICAL, SUNANDA SPECIALTY COATING PVT. LTD,
RUST PASSIVATOR	ANUVI CHEMICAL, SUNANDA SPECIALTY COATING PVT. LTD,
READYMADE SINGLE COMPONENT POLYMER CHEMICAL AND MODIFIED REPAIR MORTAR	ANUVI CHEMICAL, SUNANDA SPECIALTY COATING PVT.LTD, SKG CONSTN, BASF, SIKA, PIDILITE, FOSROC, SUNANDA, KRISHNA
STRUCTURAL REPAIR CHEMICALS	ANUVI CHEMICAL, SUNANDA SPECIALTY COATING PVT.LTD, SKG CONSTN.BASF, SIKA, PIDILITE, FOSROC, SUNANDA, KRISHNA
MICRO CONCRETE	DR. FIXIT, BASF, FOSROC, ACC, ULTRA TECH
STONE WARE PIPES GRADE-A (ISI MARKED ONLY)	SONYA, SUPERTech, CHERRY
PTMT (ISI MARKED ONLY)	PRAYAG, POLYTUF
VEENERS	GREENLAM (SUCUPIRA, GOLDEN TEAK, AFRICAN WALNUT) OR EQUIVALENT IN DURO, EKBOTE, CENTURY
METAL FALSE CEILING	ARMSTRONG, USG BORAL, AEROLITE
MINERAL FIBRE FALSE CEILING	ARMSTRONG, USG BORAL, AEROLITE
TOILET CUBICLES	MERINO (TITAN SERIES) OR EQUIVALENT IN GREENPLY, DORMA
ACCOUSTICAL WALL PANELLING	ARMSTRONG, ANUTONE, USG BORAL ECOPHONE, TECHNO
ACCOUSTICAL TILE FALSE CEILING	ARMSTRONG, ECOPHONE, USG BORAL
PUFF PANEL SHEET	KINGSPAN JINDAL, LLOYD INSULATION, ALFA

Note: -

1. The above makes are subjected to the compliance of Make in India norms.

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF STRUCTURAL REPAIRS WORKS

This agreement made this day of two thousand and between Son of of (hereinafter 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 for contract) dated and made between the GUARANTOR of the one part and the GOVERNMENT of the other part, hereby the contractor inter-alia, under took to render the buildings and structures on the said contract completely structurally sound.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain sound and strong **for five years** from the date of completion of work.

NOW THE GUARANTOR hereby guarantee that structural repairs done by him will render the structures completely steady & strong and the minimum life of such repairs shall be five years to be reckoned from the date of the completion of works.

Provided that the guarantor will not be responsible for damage caused due to earthquake or misuse of buildings or alteration and for such purpose. The decision of the Engineer-in-Charge with regard to cause of damage shall be final and binding.

During this period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer-in-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from 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 make good the defects or commits breach there under then the guarantor will indemnify the Principal and his successors 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 and the decision of the Engineer-in-Charge will be final and binding on both the parties. An amount equivalent to 2 % of item ----- will be deducted from R.A. Bills as security and the same will be refunded after five years from the date of completion of work.

IN WITNESS WHEREOF these presents have been executed by the obligator _____ and by _____ and 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 presence of

- 1.
- 2.

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA
BY

In the presence of:

- 1.

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ACRYLIC PAINT WORKS.

This agreement made this ----- day of ----- Two thousand and -----
between ----- son of ----- of -----
(herein after called the Guarantor of the part) and the PRESIDENT OF INDIA
(herein after called the Government of the other Part)

WHEREAS THIS AGREEMENT is supplementary to a contract (hereinafter called for Contract) dated ----- and made between the GUARANTOR of the one part and the GOVERNMENT of the other part, hereby the Contractor interalia, under took that the acrylic painting work done on building will remain non-flaking and uniform colouring without patches.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to effect that the said Acrylic painting will remain non-flaking and uniform colouring without patches for **five years** from the date of completion of work.

NOW THE GURANTOR hereby guarantee that Acrylic painting done by him will remain non-flaking and uniform colouring without patches and the minimum guarantee period of such painting shall be **five years** to be reckoned form the date of the completion of work.

Provided that the guarantor will not be responsible for damage caused due to earthquake or misuse of buildings or alteration and for such purpose. The decision of the Engineer-in-Charge with regard to cause of damage shall be final and binding.

During this period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer-in-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from 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 make good the defects or commits breach there under then the guarantor will indemnify the principal and his successors against all loss, damage cost, expenses or otherwise which may be incurred by him by reasons of any default on the part of 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 and the decision of the Engineer-in-Charge will be final and binding on both the parties.

An amount equivalent to **2%** of item will be deducted from R. A. Bills as security and the same will be refunded after **five years** from the date of completion of work.

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

SIGNED sealed and Delivered by (OBLIGATOR) in the presence of
SIGNED FOR AND BEHALF OF THE PRESIDENT OF INDIA
BY

In the presence of

1.

2.

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF EXTERIOR PAINT WORKS.

This agreement made this ----- day of ----- Two thousand and -----
between ----- son of ----- of -----
(hereinafter called the Guarantor of the part) and the PRESIDENT OF INDIA
(hereinafter called the Government of the other Part)

WHEREAS THIS AGREEMENT is supplementary to a contract (hereinafter called for Contract) dated -----
----- and made between the GUARANTOR of the one part and the GOVERNMENT of the other part, hereby
the Contractor inter-alia, under took that the acrylic painting work done on building will remain non-flaking
and uniform coloring without patches.

**AND WHEREAS THE GUARANTOR agreed to give a guarantee to effect that the said Acrylic painting
will remain non-flaking and uniform coloring without patches for five years from the date of completion
of work.**

NOW THE GURANTOR hereby guarantee that Acrylic painting done by him will remain non- flaking and
uniform coloring without patches and the minimum guarantee period of such painting shall be **five years** to
be reckoned form the date of the completion of work.

Provided that the guarantor will not be responsible for damage caused due to earthquake or misuse of buildings
or alteration and for such purpose. The decision of the Engineer-in-Charge with regard to cause of damage
shall be final and binding.

During this period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer-
in-Charge at his cost and shall commence the work for such rectification within seven days from the date of
issue of the notice from 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 make good the defects or commits breach there under then the guarantor will
indemnify the principal and his successors against all loss, damage cost, expenses or otherwise which may be
incurred by him by reasons of any default on the part of 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 and the decision of the Engineer-in-Charge will be final and binding on both the parties.

An amount equivalent to **2% of item's will** be deducted from R. A. Bills as security and the same will be
refunded after **five years** from the date of completion of work.

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

SIGNED sealed and Delivered by (OBLIGATOR) in the presence of

SIGNED FOR AND BEHALF OF THE PRESIDENT OF INDIA

BY

In the presence of

1.

2.

GUARANTEE BOND TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

(BASEMENT / LOWER GROUND FLOOR / UNDER GROUND TANK / ROOF)

The Agreement made this _____ day of _____ Two thousand and _____ between _____ son _____ of _____ (hereinafter 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 buildings and structures in the 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 and leak-proof for **10 (Ten) years** from the date after the Construction period prescribed in the contract.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be **10 (Ten) years** to be reckoned from the date after the Construction period prescribed in the contract.

Provided that the Guarantor will not be responsible for the 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/seepage shall be final.

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 at his cost and shall commence the work for the rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be done by the department by some other agency contractor at the GUARANTOR's risk and cost. The decision of the Engineer-in-charge as to the cost payable by the Guarantor shall be final and binding.

That if guarantor fails to make good all defects or commits breach there under then the Guarantor will indemnify the principal and his successors 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 the parties.

In addition, 10% (ten percent) of the cost of these items would be retained as guarantee to watch the performance of the work executed. However, half of this amount (withheld) would be released after five monsoon seasons after the date of completion of the work, if the performances of the waterproofing work are satisfactory.

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

SIGNED, SEALED AND delivered by OBLIGOR in the presence of: -

1.
2.

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

1.
2.

**GUARANTEE BOND TO BE EXECUTED BY THE CONTRACTOR FOR
REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ALUMINIUM
DOORS, WINDOWS VENTILATORS, STRUCTURAL GLAZING AND ACP
WORK.**

The agreement made this _____ day of _____ Two Thousand and _____ between _____ son of _____ (hereinafter called the GURANTOR 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 work in the said contract recited structurally stable, leak proof and sound material, workmanship, anodizing, colouring, sealing.

AND WHEREAS THE GURANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective anodizing, colouring, sealing and finishing for **2 (Two) years** to be reckoned from the date after the expiry of Construction period prescribed in the contract.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective anodizing, colouring, sealing and finishing for two years to be reckoned from the date after the expiry of Construction period prescribed in the contract.

The decision of the Engineer-in-charge with regard to nature and cause of defects shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from 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 risk and cost. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

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

An amount equivalent to 2% of item's will be deducted from R. A. Bills as security and the same will be refunded after 2 (Two) years from the date of completion of work.

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 ON BEHALF OF THE PRESIDENT OF INDIA BY _____
_____ in the presence of: -

1. _____
2. _____

1.
2.

Form of Bank Guarantee for Earnest Money Deposit / Performance Security
(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 bid under..... (NIT No.)Dated for..... (Name of work)..... The Government has further agreed to accept irrevocable Bank Guarantee for Rs... (Rupees.....only) 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 contractor)..... (hereinafter called "the contractor ") for execution of work (name of work) The Government has further agreed to accept irrevocable Bank Guarantee for Rs.(Rupees.....only) valid upto(date)* as **Performance Guarantee /Security Deposit / Mobilization Advance** from said contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

1. We,..... (indicate the name of the Bank) (hereinafter 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.
2. We,..... (indicate the name of the Bank), do hereby 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).
3. We,..... (indicate the name of the Bank), further undertake to pay the Government any money so demanded notwithstanding any dispute or dispute 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 valid discharge of our liability for payment there under and the contractor shall have no claim against us for making such payment.
4. 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 for bear 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.
5. 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.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor.
7. We,..... (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the government in writing.
8. 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:

Authorized signatory

1. SIGNATURE Name

NAME AND ADDRESS

Designation

Staff code no.

Bank seal

2. SIGNATURE

NAME AND ADDRESS

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

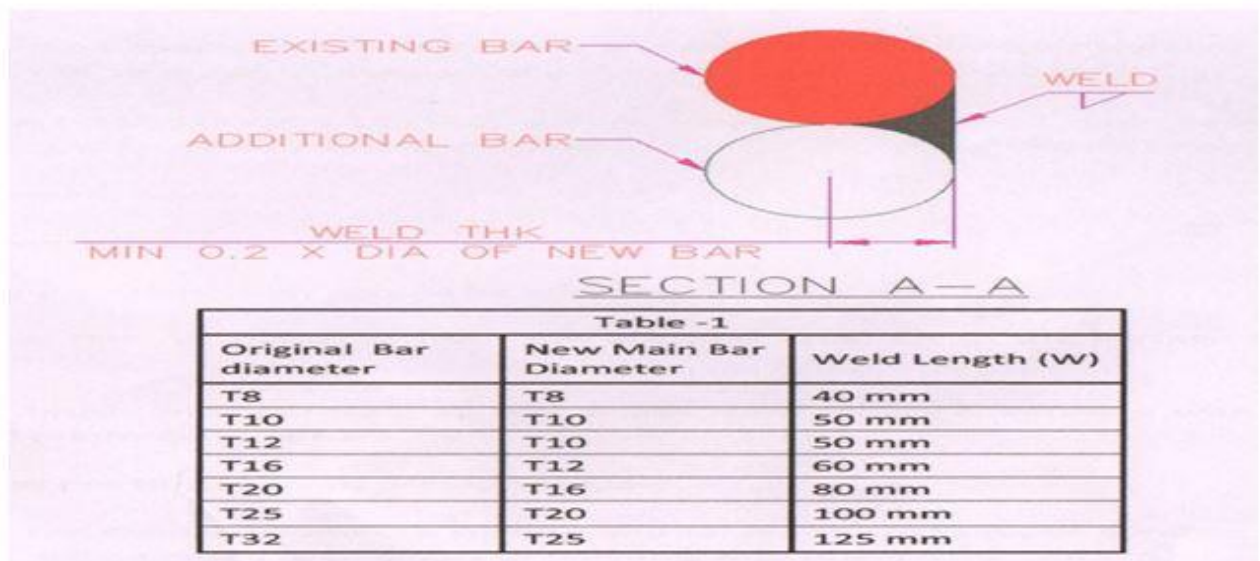
** In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for Performance Guarantee /Security Deposit / Mobilization Advance, as the case may be.

Application of Polymer

Mechanical Stirrer



Mixing container (indicative)



Application of Polymer modified mortar-2

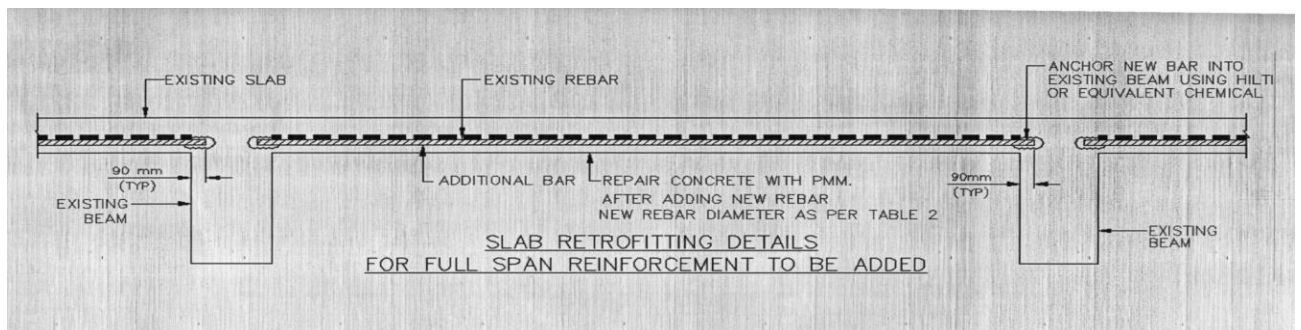
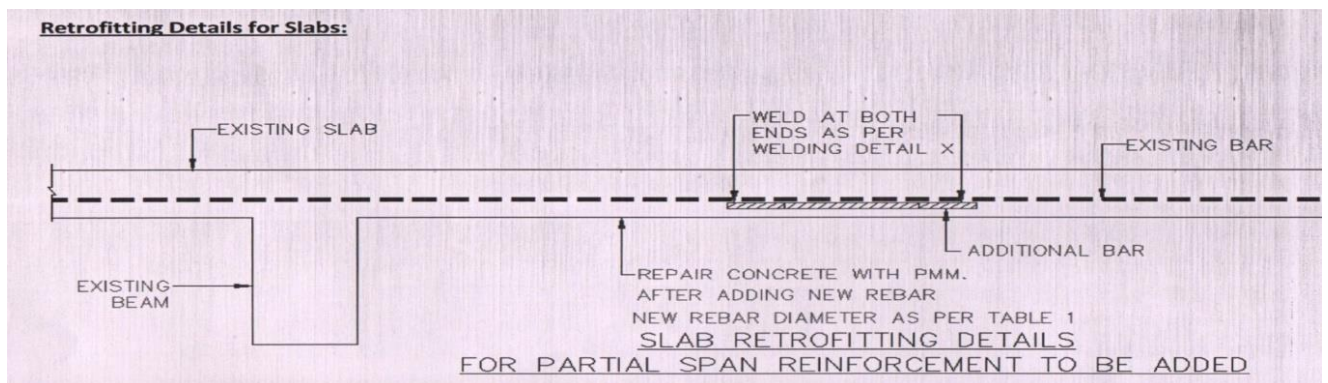
Dough like consistency



Application of Polymer modified mortar



SKETCHFORWELDINGOFREINFORCEMENT



केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Maintenance 2023/01

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 10.11.2023

Sub: Modification in GCC Maintenance Works 2023 Receipt and refund of EMDs online through e-gateway of SBI for e-tendering as pilot cases – reg.

The provision on earnest money deposit (EMD) through e-tendering is modified as under and shall only be applicable for C, E, I, N and Central Secretariat Divisions under ADG (Delhi) as pilot cases with immediate effect:-

Existing Provision	Modified Provision
CPWD-EPC CPWD-7/8	CPWD-EPC CPWD-7/8
GOVERNMENT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT Percentage Rate Tender/Item Rate Tender & Contract for Works	GOVERNMENT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT Percentage Rate Tender/Item Rate Tender & Contract for Works
TENDER I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document.	TENDER I/We have deposited EMD through online payment mode for the prescribed amount 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	In respect of portion of EMD prescribed in the shape of BG, the scanned copy of original Bank Guarantee including e-Bank Guarantee (as applicable) of any commercial bank having validity for a period of 90 days for single bid and 180 days for two bid systems or more from the last date of receipt of bids (strike out as the case may be), is to be uploaded. If I/We, fail to.....

This is issued with the approval of DG CPWD.


10.11.2023
(वी. पी. साहू)

अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/Maintenance e-file 9134857

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।


10/11/2023
R.K. JAIN
(EE (Contact))

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Maintenance 2023/02

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 08.12.2023

Subject: Modifications in Conditions of Contract, Clause 5 and schedule F in clause 5 of GCC 2023 Maintenance Works

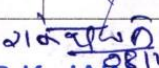
The following amendments are made in the GCC 2023 for Maintenance works.

Existing Provision	Modified Provision
CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xvii) (xviii) No provision	CONDITIONS OF CONTRACT Definitions 2. No change:- (i) to (xvii) No Change (xviii) Concurrent delay: Concurrent delays are those delays occurring in the work concurrently in any combination or combination of all delay fall under different sub clauses 5.2, 5.3 and 5.5.
Clause 5 Time and Extension for Delay The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited by the Engineer in Charge and shall be absolutely at the disposal of the Government without prejudice to any other right or remedy available in law.	Clause 5 Time and Extension for Delay The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid and such default continues even after time period specified in the notice in writing by the Engineer-in-Charge then the performance guarantee shall be forfeited by the Engineer-in-Charge and shall be absolutely at the disposal of the Government without prejudice to

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	any other right or remedy available in law. The contract shall stand determined when such decision of forfeiture of the performance guarantee is issued to the contractor.
5.1 As soon as possible but within 7 (seven) working days of award of work and in consideration of	5.1 The contractor as soon as possible but within 7 (seven) days of issue of letter of award of work shall submit a time and progress chart to the Engineer-in-Charge. Such chart shall be made in due consideration of
a. Schedule of handing over of site as specified in the Schedule 'F' b. Schedule of issue of designs as specified in the Schedule 'F', i. the Contractor shall submit a Time and Progress Chart for each mile stone. The Engineer-in-Charge may within 7 (seven) working days thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents. ii. In case of non-submission of construction programme by the contractor, the program approved by the Engineer-in-Charge shall be deemed to be final.	a. Schedule of handing over of site as specified in the Schedule 'F' b. Schedule of issue of design(s) and drawing(s) as specified in the Schedule 'F', i. The Contractor shall submit a Time and Progress Chart for each milestone. The Engineer-in-Charge may within 7 (seven) days of receipt of such chart, make modifications thereafter, if any, and communicate the approved chart to the contractor, failing which the chart submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents. ii. In case of non-submission of time and progress chart by the contractor, the chart prepared by the Engineer-in-Charge shall be deemed to be final.


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iii. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract. iv. The contractor shall submit the Time and Progress Chart and progress report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous month to the Engineer-in-charge on or before 5th day of each month failing which a recovery as per Schedule F to be decided by the NIT approving authority shall be made on per week or part basis in case of delay in submission of the monthly progress report v. No provision	iii. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract. iv. The contractor shall submit the Time and Progress Chart containing upto date progress of work using the mutually agreed software or in the format decided by Engineer-in-Charge. Such chart shall be submitted by the contractor on or before 5th day of each month failing which a recovery as mentioned in Schedule 'F' shall be made at the earliest from running account bill without any notice in this regard. v. While recording the hindrances in the progress of the work, due consideration should be given to the cause of hindrance. The hindrances shall be segregated in following categories : a) delays due to reasons beyond the control of both parties (sub-clause 5.2) b) delays attributable to the Department and concurrent delays (sub-clause 5.3). c) delays solely attributable to the contractor (sub-clause 5.5)
5.2 If the work(s) be delayed by:- i. force majeure, or ii. abnormally bad weather, or iii. serious loss or damage by fire, or iv. civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in	5.2 Delays due to reasons beyond the control of both parties: If the work(s) delayed by:- i. force majeure, or ii. abnormally bad weather, or iii. serious loss or damage by fire, or iv. civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. delay on the part of other contractors or tradesmen engaged by Engineer-in- Charge in

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executing work not forming part of the Contract, or vi. any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control	executing work not forming part of the Contract, or vi. any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control.
Then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.	Then upon the happening of any such event causing delay, the contractor shall within 03 (three) days give online notice thereof through ERP Portal to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the work(s). The contractor shall have no claim on account of any hindrance in case notice(s) are not given by the contractor through ERP portal. The Engineer-in-Charge, on receipt of such notice(s) after considering the factual ground situation, shall either acknowledge or reject the notice(s) In case of rejection, the reason(s) for rejection shall be communicated by Engineer-in-Charge to the agency. The decision of Engineer-in-Charge with regard to nature of event causing delay, its start date and end date, as has been finalized during acknowledgement of notice, shall be final and binding. The end date of such events shall be recorded by Engineer-in-Charge either during acknowledgment of notice or subsequent to acknowledgement if end date of hindrance is after the date of acknowledgement of notice. In absence of notice by the contractor, Engineer-in-Charge or his representative(s) may record the events causing delay within 05 (five)


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	days of occurrence of hindrance on ERP portal provided further that not recording of events causing delay by the Engineer-in-Charge does not ipso facto entitle the contractor for any hindrance.
The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in sub clause 5.2.	No change.
5.3 In case the work is hindered in the opinion of the contractor, by the Department or for any reason / event, for which the Department is responsible, the authority as indicated in Schedule 'F' shall, if justified, give a fair and reasonable extension of time and reschedule the mile stones for completion of work.	5.3 Delays attributable to the department In case the work is hindered, in the opinion of the contractor, by the Department or for any reason / event, for which the Department is responsible, then upon the happening of such event causing delay, the Contractor shall within 3 (three) days give online notice there of through ERP Portal to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the work. The contractor shall not be entitled for any hindrance in case notice(s) are not given by the contractor through ERP portal. The Engineer-in-Charge, on receipt of such notice(s) after considering the factual ground situation, shall either acknowledge or reject the notice(s). In case of rejection, the reason(s) for rejection shall be communicated by Engineer-in-Charge to the agency. The decision of Engineer-in-Charge with regard to nature of event causing delay, its start date and end date, as has been finalized during acknowledgement of notice, shall be final and binding.

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	The end date of such events shall be recorded by Engineer-in-Charge either during acknowledgment of notice or subsequent to acknowledgement if end date of hindrance is after the date of acknowledgement of notice. In absence of notice by the contractor, Engineer-in-Charge or his representative(s) may record the events causing delay within 05 (five) days of occurrence of hindrance on ERP portal provided further that not recording of events causing delay by the Engineer-in-Charge does not ipso facto entitle the contractor for any hindrance.
Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delays under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2 the contractor shall be entitled to only extension of time and no damages.	Such extension of time or rescheduling of milestone(s) shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delay(s) under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2, the contractor shall be entitled to only extension of time and shall have no claim of damages.
5.4 Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed forms i.e. Form of application by the contractor for seeking rescheduling of milestones or Form of application by the contractor for seeking extension of time (Appendix - XVI) respectively to the authority as indicated in Schedule 'F'. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired.	5.4 Rescheduling of milestone(s) and 'extended date of completion' The request for rescheduling of Milestone(s) and extension of time, shall be made by the Contractor through ERP Portal once in a month on the basis of hindrances accepted by Engineer-in-Charge under sub-clause 5.2 and sub-clause 5.3. The Contractor shall indicate in such a request number of days by which rescheduling of milestone(s) and/or extension of time is desired.
With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme without causing any delay in execution	Deleted

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(EE (Contract))

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of the work. A recovery as specified in Schedule 'F' shall be made on per day basis in case of delay in submission of the revised programme.

No provision

The authority as indicated in Schedule 'F', after examining the request, shall give a fair and reasonable extension of time for completion of work and simultaneously reschedule the milestone(s), if required so. The authority shall consider all the hindrances accepted as per sub-clauses 5.2, 5.3 and 5.5.

The authority shall decide rescheduling of milestone(s) and extension of time within 21 (Twenty One) days of the request submitted by the contractor through ERP portal. In event of no request by the contractor for rescheduling of milestone(s) and extension of time, the authority as indicated in Schedule F, after affording opportunity to the contractor, may give fair and reasonable extension of time based on hindrances accepted by Engineer-in-Charge and reschedule the milestone(s) once in a month. Such justified extension of time shall determine the 'extended date' of completion of work.

5.4.1 In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time for completion of work or reschedule the mile stones.

5.4.1 Provided that the end date of any event causing delay shall not fall beyond the date of request for extension of time or rescheduling of milestone(s) by the contractor. In case end date of event falls beyond the date of submission of said request, then period for extension up to date of application shall be considered in the said request for events eligible for consideration and remaining period shall be applied in subsequent request of extension of time or rescheduling of milestone(s).

E-in-C shall finalize/ reschedule a particular mile stone before taking an

Engineer-in-Charge shall finalize/ reschedule a particular mile stone

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(EE (Contact))

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action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 21 days of the date of receipt of such request from the Contractor in prescribed form. In event of non-application by the contractor for extension of time E-in-C after affording opportunity to the contractor, may give, supported with a programme (as specified under 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event.	before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 21 (twenty one) days of the date of receipt of such request from the Contractor on ERP Portal.
5.5 In case the work is delayed by any reasons, in the opinion of the Engineer- in-Charge, by the contractor for reasons beyond the events mentioned in clause 5.2 or clause 5.3 or clause 5.4 and beyond the justified extended date, without prejudice to right to take action under Clause 3, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.	5.5 Delays attributable solely to the contractor In case the work is delayed by reasons solely attributable to the contractor, then Engineer-in-Charge or his representative(s) may record the event causing delay within 05 (five) days of occurrence of delay in the ERP portal. Contractor shall take the notice of the same for necessary action. He may submit his version, if any within 05 (Five) days. Engineer-in-Charge, considering the version of the contractor, will take decision on such recording of the event and the decision of the Engineer-in-Charge shall be final and binding. The contractor shall be liable for levy of compensation for such delays (i.e. for the period beyond the justified extended date of completion as determined in sub clause 5.4 and this default of contractor shall be dealt in conjunction with clause 2 of the contract. In case the work is delayed, due to hindrances attributable solely to the contractor, beyond the justified extended date (as stated in sub clause 5.4), the authority indicated in Schedule 'F', without prejudice to provisions to take action under Clause 3, may grant extension of

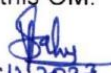

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	time required for completion of work without rescheduling of milestone(s) and extend the date of completion.
PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders)	PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect. & Hort. Works in case of Composite Tenders)
SCHEDULE 'F'	SCHEDULE 'F'
Clause 5	Clause 5
Authority to decide:	
i. Extension of time (Engineer in Charge or Engineer in Charge of Major Component in case of Composite Contracts, as the case may be)	i. Authority to convey the decision of shifting of milestone and extension of time (Engineer-in-Charge or Engineer-in-Charge of Major Component in case of Composite Contracts, as the case may be)
ii. Rescheduling of mile stones (Superintending Engineer/ PM/CPM in Charge or Superintending Engineer/ PM/CPM in Charge of Major Component in case of Composite Contracts, as the case may be)	ii. Authority to decide rescheduling of milestone and extension of time (SE/SE&PD/CE/ CE&ED).
iii. Shifting of date of start in case of delay in handing over of site (Superintending Engineer/ PM/CPM in Charge or Superintending Engineer in Charge of Major Component in case of Composite Contracts, as the case may be)	iii. Shifting of date of start in case of delay in handing over of site (SE/SE&PD/CE/ CE&ED).

This OM is applicable for all NITs uploaded after date of issue of this OM.

This is issued with the approval of DG CPWD.


 08.12.2023
 (वी. पी. साहू)

अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/ Maintenance e-file 9161772

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।


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केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Maintenance 2023/03

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 18.12.2023

Subject: Modifications in Conditions of Contract, Clause 12 and Schedule E and F of GCC 2023 for Maintenance Works

The following amendments are made in the GCC 2023 Maintenance Works:

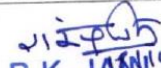
Existing provision	Modified provision
CONDITIONS OF CONTRACT	CONDITIONS OF CONTRACT
Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (x)(a)	Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (x) (a) No change
(x) (b) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender documents or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto the date of receipt of the tender.	(x) (b) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender documents or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued previous day of the last date of submission of the tender.
(xi) to (xv)	(xi) to (xv) No change
(xvi) No provision	(xvi) Extra items are those items which are not available in the contract. a. Non Schedule Extra Items are those items which are not available in the Standard Schedule of Rates specified in Schedule F. b. Scheduled Extra Items are those items which are available in the Standard Schedule of Rates specified in Schedule F.
(xvii) No provision	(xvii) Completion cost: The completion cost includes gross amount of work done, amount of extra item(s) and deviation(s) and escalation amount admissible as per agreement etc.

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(xviii) No provision	(xviii) Maintenance work: Maintenance work(s) are those work(s) which includes upgradation, aesthetic improvement, special repair, addition/ alteration, annual repair, comprehensive maintenance work etc.
Clause 12 Deviations/ Variations Extent and Pricing The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for other reasons and the contractor shall be bound to carry out the works in accordance with any instruction given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.	Clause 12 Deviations/ Variations Extent and Pricing No change
The completion cost of any agreement for maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration should not exceed two times the contract amount. Deviation upto 1.25 times of contract amount shall be approved by Engineer-in-Charge with recorded reasons. Deviation beyond 1.25 times upto 1.50 times of contract amount shall be approved by SE/CE (as applicable) with recorded reasons. In exceptional case, ADG/SDG (as applicable) shall have power to approve the deviation beyond 1.50 times upto 2.0	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.


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times of contract amount with recorded reasons and take suitable corrective action.	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.
12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows : (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge	12.1 The time for completion of the works shall, in the event of any deviation(s) and extra item(s) resulting in additional cost over the contract amount will be extended, if requested by the contractor, as follows : (i) In the proportion to the additional cost of work, bears to the original contract amount plus (ii) 25% of the time calculated in (i) above.
12.2 Deviation, Extra Items and Pricing Extra items are those which are not available in the contract. For percentage rate tenders, the extra item(s) which are available in the standard schedule of rates specified in Schedule F, shall be paid as per the said schedule rate plus cost index (considered in the estimated cost put to tender) plus/minus percentage above/ below quoted on estimated cost put to tender. For item rate tenders, the extra item(s) which are available in the standard schedule of rates specified in Schedule F, shall be paid as per the said schedule rate plus cost index (considered in the	12.2 Deviation, Extra Items and Pricing Deleted Deleted


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(E.E. (Contact))

estimated cost put to tender) plus/minus percentage above/ below worked out on the basis of overall contract amount and estimated cost of the work put to tender.

In the case of extra item(s) which are not available in the standard schedule of rates specified in Schedule F, the contractor may within fifteen days of the receipt of order or occurrence of the item(s), submit claim for market rate(s), supported with proper analysis of rate and manufacturer's specification for the work, invoices, vouchers, etc. (as applicable),

(a) **Non Schedule Extra Item(s)** - The contractor, shall within fifteen days of the receipt of order to execute extra item(s) or occurrence of the item(s), submit analysis of rate of extra item(s) based on the rate(s) of material(s) available in basic rate of Standard Schedule of Rate mentioned in schedule F and rate(s) of the material(s) based on tax paid bills which are not available in standard Schedule of Rate mentioned in schedule F. For this purpose, the basic rate of material(s) available in Schedule of Rate(s) mentioned in Schedule F will be enhanced or reduced by the applicable cost index, as the case may be.

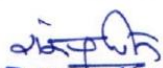
The rate(s) of the material(s) which are not available in Standard Schedule of Rates, mentioned in Schedule F, shall be based on, tax paid bill(s) for the material(s) as defined in manufacturer's specification.

Material rate(s) from Standard Schedules of Rate(s) shall be given priority in the analysis of rate(s). The rate of extra item will be

- i. Analyzed rate(s) as above multiplied by (Contract amount divided by estimated cost put to tender), if tendered amount is below the estimated amount put to tender.
- ii. Analyzed rate, if the Contract amount is above the estimated amount put to tender.

failing which the rate(s) approved later by the Engineer-in-Charge shall be final and binding.

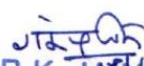
Failing which the rate(s) approved later by the Engineer-in-Charge shall be final and binding.


R.K. JAIN
(EE (Contact))

Where the contractor submits claim for market rate(s) in the manner prescribed above, the Engineer-in-Charge shall, within 45 days of the receipt of the claims, after giving consideration to the analysis of rates and other documents submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.	Where the contractor submits analysis of rate(s) of extra item(s) in the manner prescribed above, the Engineer-in-Charge shall, within 60 days of the receipt of the analysis of rate, after giving consideration to the analysis of rates and other documents submitted by the contractor, determine the rate(s) of extra item(s). The contractor shall be paid in accordance with the rate(s) so determined. However provisional rate(s) on the basis of invoice will be allowed by the Engineer-in-Charge. Invoice shall be accepted only for material(s) not available in the Standard Schedule of Rates mentioned in Schedule F. The contractor while submitting the tax paid bill of purchased material(s) shall ensure that rate(s) of the materials are reasonable and lowest available in the market. If Engineer-in-Charge feels rates in tax paid bill(s) submitted by contractor are not reasonable then he can modify the rate(s) after giving a notice to the contractor. Engineer-in-Charge is the final authority to decide applicable rate(s) of material(s).
(b) No Provision	(b) Scheduled Extra Items - For percentage rate tender, the extra item(s) shall be paid as per the Standard Schedule of Rates, mentioned in Schedule F, enhanced or reduced by the applicable cost index and further enhanced or reduced by percentage above/ below quoted by the contractor on estimated cost put to tender. - For item rate tender, the extra item(s) shall be paid as per the said schedule rate enhanced or reduced by the applicable cost index and multiplied by (Contract amount divided by estimated cost put to tender).


R.K. JAIN
 (EE (Contact))

The rate(s) of extra items so determined by the Engineer-in-Charge shall be final and binding on the contractor, and shall not be arbitrable.	The rate(s) of extra item(s) so determined by the Engineer-in-Charge shall be final and binding on the contractor.
12.3 Deviation, Deviated Quantities, Pricing All the deviated quantities shall be paid at agreement rates	12.3 No change
12.4 The case of any operation incidental to or necessarily has to be in contemplation of tenderer while quoting filing tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.	12.4 No Change
12.5 No provision	12.5 Cost index Latest available Cost index at the time of beginning of execution of extra item(s) shall be used in sub-clauses 12.2 (a) and 12.2 (b) for calculation of rate(s) of extra item(s).
12.6 No provision	12.6 Labour rates Labour rates will be based on latest available circulars issued by Central Govt. or State Govt. whichever are higher as well as applicable for the work.
PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders) SCHEDULE 'E' Reference to General Conditions of Contract	PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders) SCHEDULE 'E' Reference to General Conditions of Contract : (GCC EPC Projects 2022/ GCC Maintenance Works 2023/ GCC Construction Works 2023)


R.K. JAIN 4/2023
 (EE (Contact))

	Applicable GCC is as modified & corrected upto previous day of the last date of submission of the tender. (NIT approving authority to mention one GCC in the space provided above)
SCHEDULE 'F' GENERAL RULES & DIRECTIONS: Officer inviting tender 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. See below	SCHEDULE 'F' GENERAL RULES & DIRECTIONS: No Change Deleted
9 (ii) Standard CPWD contract Form GCC 2020, CPWD Form 7/ 8 as modified & corrected upto	9(ii) Standard CPWD contract Form General Conditions of Contract Maintenance Works 2023 , CPWD Form 7/ 8 as modified & corrected upto previous day of the last date of submission of the tender.
Clause 12 12.2 Deviation Limit beyond which clauses 12.2 shall apply for building work	Clause 12 Deleted

This issues with the approval of DG CPWD.


18-12-2023
(वी. पी. साहू)

अधीक्षण अभियंता(सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/Maintenance e-file 9163323

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)


R.K. JAIN
(EE (Contact))

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Maintenance 2023/04

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 08.02.2024

Subject: Modifications in Conditions of Contract and Clause 19 of GCC 2023 for Maintenance Works

The following amendments are made in the GCC 2023 for Maintenance Works:

Existing provision	Modified provision
CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xix) (xx) No provision (xxi) No provision	CONDITIONS OF CONTRACT Definitions 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xix) No change (xx) Adolescent Person: A person who has completed his/her fourteenth year of age but has not completed his eighteenth year. (xxi) Hazardous works: Hazardous process/works are the works as defined in the clause (cb) of the Factory Act, 1948.
Clause 19 Labour Laws to be complied by the Contractor The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971. The contractor shall also obtain a valid licence under the said Act before the commencement of the work, and continue to have a valid licence until its completion. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.	Clause 19 Labour Laws to be complied by the Contractor No change No change No change

The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986. The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996. Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.	The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, amended by Amendment Act No. 35 of 2016 and thereafter time to time. No change No change
Clause 19A No labour below the age of eighteen years shall be employed on the work.	Clause 19A No person below the age of fourteen years shall be employed on the work. However Adolescent Persons can be employed on non-hazardous works/process.
C.P.W.D. Contractor's Labour Regulations 2. DEFINITIONS i. (c) Who is an out worker, that is to say, person to whom any article or materials are premises under the control and management of the principal employer. No person below the age of 18 years shall be employed to act as a workman.	C.P.W.D. Contractor's Labour Regulations 2. DEFINITIONS i. (c) No change. No person below the age of fourteen years shall be employed on the work. However Adolescent Persons can be employed on non-hazardous works/process.

This issues with the approval of DG CPWD.

(Signature)
08.02.2024
(वी. पी. साहू)

अधीक्षण अभियंता(सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2024/Maintenance e-file 9169019

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

**Central Public Works Department
Office Memorandum**

No. DG/CON/Maintenance 2023/05

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD 61.03.2024

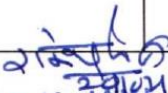
NIRMAN BHAWAN, NEW DELHI

Dated: 20.02.2024

Subject: Modifications in Conditions of Contract, Clause 19 and 20 of GCC 2023 for Maintenance Works

The following amendments are made in the GCC 2023 for Maintenance Works:

Existing provision	Modified provision
CONDITIONS OF CONTRACT Definitions 9. Signing of Contract:- The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- (i) to (iii) No Provision	CONDITIONS OF CONTRACT Definitions 9. Signing of Contract:- The successful tenderer, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- (i) to (iii) No change In the event of successful tenderer being a firm/company, then the agreement shall be signed by all the partners or directors thereof individually. In the event of the absence of any partner/director, it shall be signed on his behalf by a person holding a power of attorney (duly notarized by notary public or board resolution in case of company) authorizing him to do so.
Clause 19 B Payment of Wages (i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.	Clause 19 B Payment of Wages (i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971 and Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) amended time to time.


R.K. JAIN
 (EE (Contact))

(v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.	Thus higher of the wages either notified by Govt. of India, Ministry of Labour and/or that notified by the local administration of the State Govt. both relevant to the place of work and the period of reckoning shall be paid by the contractor to the labourer . (v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) and the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
Clause 20 Minimum Wages Act to be Complied With The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.	Clause 20 Minimum Wages Act to be Complied With The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.

This issues with the approval of DG CPWD.

[Signature] 01.03.2024
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023 e-file no. 9163323

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)

[Signature]
29/04/2024
R.K. JAIN
(EE (Contact))

Central Public Works Department

Office Memorandum

No. DG/CON/Maintenance 2023/06

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 01.03.2024

Subject: Modifications in Clause 7 of GCC 2023 for Maintenance Works

The following amendments are made in the GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 7 Payment on intermediate certificate to be regarded as Advances No payment shall be made for work, estimated to cost Rs. Five lac or less till after the whole of the work shall have been completed and certificate of completion given. calendar month of the measurements recorded upto previous month as per clause 6.	Clause 7 Payment on intermediate certificate to be regarded as Advances No change.
The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.	The contractor shall not be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.
No provision	However, to expedite the progress of work, Engineer-in-Charge, on the request of contractor, may make interim payment(s) even before the net payment limit specified in schedule 'F' is achieved. In such case(s) no interest / compensation shall be recoverable from contractor. Such payment by Engineer-in-Charge shall not be construed as waiver of limit specified in schedule 'F' for subsequent interim payment(s).

This issues with the approval of DG CPWD.


(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Maintenance e-file no. 9135972

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)


R.K. JAIN 03/2024
(EE (Contact))

Central Public Works Department
Office Memorandum
No. DG/CON/Maintenance 2023/07
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD
NIRMAN BHAWAN, NEW DELHI **Dated: 05.03.2024**
Subject: Modifications in Clause 19 of GCC 2023 for Maintenance Works

The following amendments are made in the GCC 2023 for Maintenance Works.

Existing provision	Modified provision
Clause 19 Labour Laws to be complied by the Contractor	Clause 19 Labour Laws to be complied by the Contractor
The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971.	No change
The contractor shall also obtain a valid licence under the said Act before the commencement of the work, and continue to have a valid licence until its completion.	No change
The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.	No change
The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, amended by Amendment Act No. 35 of 2016 and thereafter time to time.	No change.
The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.	No change


R.K. JAIN
(EE (Contact))

No provision	The contractor shall also comply with the provisions of Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act, 2013 and amendment thereafter time to time.
Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.	Any failure to fulfil these requirements shall attract the penal provisions of the relevant act and in this contract
Clause 19 M No Provision	Clause 19 M Sexual Harassment of Women at Workplace The contractor shall comply with all provision(s) and guideline(s) of Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act, 2013 and amendment thereafter time to time or any other rules framed under any labour law affecting women worker(s).

This issues with the approval of DG CPWD.


05.03.2024
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023 e-file no. 9163323

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)


21.03.2024
R.K. JAIN
(E.E (Contact))

**Central Public Works Department
Office Memorandum**

No. DG/CON/Maintenance 2023/08

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 03-06-2024

Subject: Modifications in Clause 36 of GCC 2023 for Maintenance Works

The following amendment is made in the Clause 36 of GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 36 If relative working in CPWD then the contractor not allowed to tender The contractor shall not be <u>permitted</u> to tender for works in the CPWD circle <u>(Division in case of contractors of Horticulture/Nursery categories)</u> responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the <u>Superintending Engineer</u> and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working <u>with him in any capacity</u> or are subsequently employed by him and who are near relatives to any <u>Gazetted Officer in the C.P.W.D. or in the Ministry of Housing and Urban Affairs</u>. Any breach of this condition by the contractor would render him liable to be <u>removed from the approved list of contractors of this Department. If however the contractor is registered in any other department, he shall be debarred from tendering in CPWD for any breach of this condition.</u>	Clause 36 If relative working in CPWD then the contractor is not allowed to participate in the tendering process The contractor (enlisted or non-enlisted in CPWD) shall not be allowed to participate in the tender for work(s) in the CPWD Zone/circle /Division/Sub-Division responsible for award and/or execution of contract(s) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or are subsequently employed by him and who are near relatives to any Officer working in the CPWD. Any breach of this condition by the contractor would render him liable to be debarred for a period upto two years from tendering in CPWD as decided by the accepting authority mentioned in Schedule F and his decision will be excepted from clause 25.
NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.	No change.

This issues with the approval of DG, CPWD.


 03-06-2024
 (V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/ Maintenance e-file 9135972

All CPWD and PWD officers for information and necessary action. (Through CPWD website)

17/05/2024
 R.K. JAIN
 EE (Contract)

Central Public Works Department

Office Memorandum

No. DG/CON/Maintenance 2023/09

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 03-06-2024

Subject: Additions in 'General Rules and Directions' of GCC 2023 for Maintenance Works

The following additions are made in GCC 2023 for Maintenance Works under 'General Rules and Directions':

Existing provision	Modified provision
General Rules and Directions Sl. No. 1 to 16 No Provision	General Rules and Directions No Change 17. Price Preference to SC/ST individual contractor for _____ item _____ rate/percentage _____ rate tender: Price preference in quoted item rate/percentage rate tender shall be applicable to the individual enlisted/non-enlisted SC/ST contractor as under:- i. For work(s) upto and equal to an estimated cost of Rs.2.70 lakh a price preference upto 5% (with reference to the lowest valid tender) may be allowed in favor of individual SC/ST enlisted/non-enlisted contractor. No earnest money is required in such case(s). ii. For work(s) beyond an estimated cost of Rs. 2.70 lakh and upto and equal to estimated cost of Rs. 6.20 lakh, the price preference upto 5% (with reference to the lowest valid tender) may be allowed in favour of individual enlisted SC/ST contractor. However, earnest money at a reduced rate of ½% may be accepted in such cases. iii. The price pretence upto 5% (with reference to the lowest valid price bid) may be allowed in favour of individual SC/ST contractor. The above concession shall be allowed only after proper verification of the individual contractor's claim of belonging to SC/ST community.
Schedule F No Provision	Schedule F Price Preference to SC/ST individual contractor is valid upto _____ (date)

This issues with the approval of DG CPWD.

[Signature]
03.06.2024
(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Maintenance e-file 9163323

All CPWD and PWD officers for information and necessary action.(Through CPWD website)

[Signature]
21/05/2024
R.K. JAIN
EE (Contract)

केन्द्रीय लोक निर्माण विभाग
कार्यालय झापन

No. DG/CON/Maintenance 2023/10

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 09.10.2024

Subject: Modifications in Clause 10A of GCC 2023 for Maintenance Works.

The following amendment is made in the Clause 10A of GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 10A Materials to be provided by the contractor The contractor shall as specified in Schedule F. No Provision	Clause 10A Materials to be provided by the contractor (i) No Change (ii) Maintenance of Material at Site (MAS) Register (a) MAS register of the key materials including Cement, Steel Bitumen, Paint, Primer, Distemper, Varnishes, Tile Adhesive, Admixture, Anti termite chemical Water proofing compound material and other items as required by Engineer-in-Charge, and shall be maintained as per proforma in Appendix-XX of GCC. All the entries in the MAS registers are made by the designated staff of the contractor and same is reviewed weekly by the authorized representative and fortnightly by the Engineer-in-Charge. However, contractor is responsible for maintenance and safe custody of MAS registers.
(b) No provision	(b) The self-attested copies of tax paid bill of all the materials entered in the MAS register shall be submitted by the contractor at the time of review by representative of Engineer-in-Charge. In case of any doubt, genuineness of the tax paid bills; it can be verified by the representative of the Engineer-in-Charge or the Engineer-in-Charge, however, onus of genuineness of tax paid bills rest with the contractor.

R K SINGH
EE(Manual)

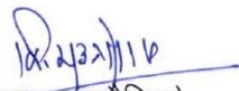
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Appendix-XX
REGISTER OF MATERIAL AT SITE (MAS)

1. Division/Sub-division
2. Name of Work
3. Name of Article/Item
4. Estimated Requirements

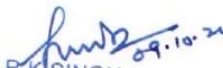
S. No.	Date of Receipts (Details of Challans/ Bills, Specific location where Plants and Materials received/ Vehicle No.	Received from/ Issued to	Quantity Received	Date of issue	Specific location where Plants & Materials Displayed / Delivered / issued	Quantity Issued	Balance Quantity	Signature of authorized representative of contractor	Signature of authorized representative of Engineer-in-Charge/ AE/EE/	Remarks
1	2	3	4	5	6	7	8		9	10

This issues with the approval of DG, CPWD.


 (दिनेश कुमार उज्जैनिया)
 अधीक्षण अभियंता (सी.एंड एम.)

**Issued from file No. CSQ/CM/17(1)/ Maintenance/2024
e-file 9184028 (DFA/9301389)**

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)


 R K SINGH
 EE(Manual)



केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Maintenance-2023/11

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 29.10.2024

Subject: Modifications in Conditions of Contract, Clause 10A of GCC Maintenance Works 2023.

Following amendments are made in the GCC Maintenance Works 2023 :-

Existing Provision	Modified Provision
Clause 10A: Materials to be provided by the Contractor (i) The contractor shall, thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor. The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F. No Provision	No Change Field Laboratory: The contractor shall at his own expense, setup a material testing lab equipped with the testing equipment as specified in schedule F at site for conducting routine field test. External Laboratory: Letter for submitting sample(s) for testing of material shall be sent through e-mail to the Lab by authorized representative of Engineer-in-Charge or Engineer-in-Charge of the work along with name(s) of test(s) to be done on the material. The contractor shall collect the sample(s) from the site and submit it to the lab; make necessary payment for the testing charges. He will inform on the same day through email to

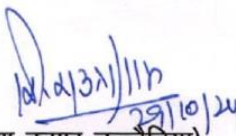

R K SINGH
EE(Manual)

1

No Provision	authorized representative of Engineer-in-Charge and Engineer-in-Charge regarding submission of sample (s) and payment made to the lab. If he either fails to collect or submit the sample(s) to the lab within 03 days or in time as prescribed in the specifications, whichever is earlier, the Engineer-in-Charge shall collect and submit the sample(s) and make necessary payment for testing charges to the lab. In such case, Engineer-in-Charge shall make recovery on account of collection and submission of sample(s) to the lab and paid testing charges etc. from the next R/A bill / Final bill of the contractor. This action of Engineer-in-Charge shall be final and binding. If the contractor fails three times in collection and/or submitting sample(s) and/or fails to make payment for testing charges, the contractor shall be debarred from tendering in CPWD for a period of two years.
Sl. no. (ii) (a) and (b)	No change

This OM is applicable for all NITs uploaded after date of issue of this OM.

This is issued with the approval of DG CPWD.


 (दिनेश कुमार उज्जैनिया)
 अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2024/Maintenance e-file- 9184436 (DFA/9303295)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)


 R K SINGH
 EE(Manual)

**केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन**

No. DG/CON/Maintenance 2023/12

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 03.01.2025

Subject: Modifications in General Rules and Directions of GCC 2023 for Maintenance Works.

The following amendments are made in the General Rules and Directions of GCC 2023 for Maintenance Works:

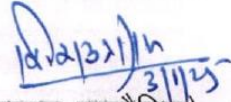
Existing provision	Modified provision
Applicable for Item Rate Tender only (CPWD - 8) 4 The rates rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer. If the revised their tenders. In case of any be forfeited. In case all lowest contractors. Contractor of the work.	Applicable for Item Rate Tender only (CPWD - 8) 4 No change In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit revised price bid online using e-tender website, quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, on the revised template which has been sent to them by the Tender Inviting Authority (TIA), but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer. No change
Applicable for Percentage Rate Tender only [CPWD- 7] 4B In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning	Applicable for Percentage Rate Tender only [CPWD- 7] 4B In case the lowest tendered amount (estimated cost $\pm$ amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit revised price bid online quoting percentage above/


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percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.	below on estimated cost of tender including all sub sections/sub heads as the case may be on the revised template which has been sent to them by the Tender Inviting Authority (TIA), but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.
In case of any be forfeited. If the revised their tenders. In case all process of the work.	No change

This issues with the approval of DG, CPWD.


(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

**Issued from file No. CSQ/CM/17(1)/ Maintenance/2024
e-file 9185053 (DFA/9307326)**

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)


R K SINGH
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केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Maintenance 2023/13

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 31.01.2025

Subject: Modifications in Clause 7A of GCC 2023 for Maintenance Works

The following amendments are made in the Clause 7A of GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 7A No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.	Clause 7A (a) No Running Account Bill/Final 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. (b) The following documents shall also be part of the bill submitted by the contractor (these documents shall be owned by the contractor) before making payment:- 1. Details of person employed with date of their employment up to previous month. 2. Documents of payment made to the employees directly into their bank accounts up to previous month. 3. Documents of attendance through biometric attendance or other mode up to previous month. 4. Documents of deposition of EPF and ESI deductions in the employee's accounts up to previous month. 5. Any penalty imposed on the agency for delay in disbursing payment and deposition of EPF and ESI deductions in the employee's accounts up to previous month. 6. Any other document(s) required as per statutory requirements and/or as directed by Engineer-in-Charge. (c) In case, any of the documents submitted by the contractor is found false/forged at a later date, action for debarment of contractor will be taken by the SE/CE concerned.

This issues with the approval of DG, CPWD.

(दिनेश कुमार खज्जैनिया)

अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/Maintenance e-file 9184028 (DFA/9313089)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

31.1.25
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EE(Manual)

**Central Public Works Department
Office Memorandum**

No. DG/CON/Maintenance 2023/14

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

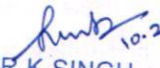
NIRMAN BHAWAN, NEW DELHI

Dated: 10.02.2025

Subject: Modifications in Clauses 7, 8, 9 and Schedule F of clause 8 of GCC 2023 for Maintenance Works.

The following amendments are made in the Clauses 7, 8, 9 and Schedule F of clause 8 of GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 7 Existing provisions No provision	Clause 7 No change In case of correction / rejection / short documents, it will be mandatory for Engineer-in- Charge to give recorded reasons for correction / rejection / submission of additional documents within seven days after submission of running bill by the contractor.
Clause 8 Completion Certificate Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate sum actually realized by the sale thereof.	Clause 8 Completion Certificate Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and the Engineer-in-Charge within seven days of receipt of intimation of completion from contractor will inspect the work and satisfy himself about completion of work, then intimate to the concerned authorities as mentioned in Schedule F for issuance of completion certificate. The concerned authorities will inspect the work and issue completion certificate within thirty days of the receipt of such intimation. The Engineer-in-Charge shall furnish to the contractor a final certificate of completion as the case may be, indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates. No change.


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Clause 9 Payment of Final Bill

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


10.2.25
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Clause 9 Payment of Final Bill

- i. The final bill shall be submitted by the contractor **to the Engineer-in-Charge** in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final **completion** certificate furnished by the Engineer-in-Charge whichever is earlier. **At the time of submission of the final bill, receipt will be given by the O/o Engineer-in-Charge.**
- ii. In case of correction / rejection / short documents, it will be mandatory for Engineer-in-Charge to give recorded reasons for correction / rejection / submission of additional documents within fifteen days after submission of final measurement and/or final bill by the contractor.
- iii. Final bill will be accepted with all pre-requisite documents such as sanctioned copies of extra items and deviation in quantities, escalation statements, recovery statement, theoretical statement, completion certificate, final extension of time case, mandatory tests statement, dismantled materials account and other documents as mentioned in clause-7 A etc.
- iv. An undertaking along the final bill will be submitted by the contractor that "I / we hereby under take that all the measurements/claims payable under this contract have been included in the final bill and will not submit any other bill/claims in future under this agreement thereafter".
- v. No further claims shall be entertained from the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer in

If the final bill is submitted by the contractor within the period specified above and delay in payment of final bills is made by the department after prescribed time limit, a simple interest @ 5 % (five percent) per annum shall be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor is found to be in order.

Schedule F

Clause 8

No Provision

charge, will, be made within the period of three months. The period of **three months will be** reckoned from the date of receipt of the bill **in complete shape after necessary corrections / additional documents**, by the Engineer-in-Charge.

vi. In case of foreclosure / determination of contract, if the contractor fails to submit the EOT case, final measurement /bills within 30 days of foreclosure/ determination, the final bill will be prepared and decided by the department. The final bill shall only be paid after withholding amount equivalent to maximum compensation to be levied on the contractor.

vii. If the final bill, **in complete shape**, is submitted by the contractor within the period specified above and delay in payment of final bills is made by the department after prescribed time limit, a simple interest @5% (five percent) per annum **may** be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor **contains all the documents as mentioned in para – (iii) & (iv) above.**

Schedule F

Clause 8

Competent Authorities to inspect and issue completion certificate

(To be filled by NIT approving authority).

This issues with the approval of DG, CPWD.

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. **CSQ/CM/17(1)/2025/Maintenance e-file 9190123 (DFA/9315616)**

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)


R K SINGH
EE(Manual)

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/ Maintenance 2023/15

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

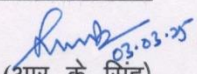
Dated: 03.03.2025

Subject: Modifications in Clause 14 of GCC 2023 for Maintenance Works.

The following amendments are made in the Clause 14 of GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 14 Carrying out part work at risk & cost of contractor If contractor: (iii) The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.	Clause 14 Carrying out part work at risk & cost of contractor If contractor: (iii) The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor. The contractor, from whom a part work / part incomplete work of any item(s), has been taken out of his hands, shall not be allowed to participate in the tendering/quotation process of part work / part incomplete work of any item(s).

This issues with the approval of DG, CPWD.


(आर. के. सिंह)

कार्यपालक अभियन्ता (एम.)

Issued from file No. CSQ/CM/17(1)/2023/ Maintenance e-file-9184028 (DFA/9319526)

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।

(केलोनवि वेबसाईट के माध्यम से)

R K SINGH
EE(Manual)

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/ Maintenance 2023/16

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

Dated: 16.06.2025

Subject: Modifications in Clause 25.2(b) and 25.6 of GCC 2023 for Maintenance Works.

The following amendments are made in the Clause 25.2(b) and 25.6 of GCC 2023 for Maintenance Works:

Existing provision	Modified provision
Clause 25.2 (b) Qualification of Arbitrators: It is a term of this contract that each member of the Arbitral Tribunal shall be Graduate Engineer with experience in execution of public works engineering contracts, and he should have worked earlier at a level not lower than the Chief Engineer (equivalent to level of Joint Secretary to the Government of India). The aforesaid educational qualification and work experience shall be mandatory for appointment as Arbitrator. The age of Arbitrator at the time of appointment shall not exceed 75 years. An Arbitrator may be appointed notwithstanding the total number of active arbitration cases with him.	Clause 25.2 (b) Qualification of Arbitrators: It is a term of this contract that each member of the Arbitral Tribunal shall be Graduate Engineer (in Civil or Electrical or Mechanical Engineering) with experience in execution of public works engineering contracts and he should have worked earlier at a level not lower than the SAG (Level 14 of 7th CPC) of the Government of India). The aforesaid educational qualification and work experience shall be mandatory for appointment as Arbitrator. The age of Arbitrator at the time of appointment shall not exceed 70 years.
Clause 25.6 Fee payable to Arbitrator(s): The fee payable to the arbitral tribunal shall be as per CPWD OM No.2/2006/SE(TLC)/CSQ/137 dated 19.11.2019 (or latest amendment), and shall be shared equally by both the parties.	Clause 25.6 Fee payable to Arbitrator(s) for arbitration cases, shall be as per the fee given in the fourth schedule of the Arbitration & Conciliation Act, 1996 (or latest amendment), and shall be shared equally by both the parties.

This issues with the approval of DG, CPWD.

चन्द्र पाल
(चन्द्र पाल)
16/06/2025

अधीक्षण अभियंता (सी. एंड एम.)

Issued from file No. CSQ/CM/17(1)/2025 / Maintenance e-file 9135700 (TLC File)

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)

R K SINGH
EE (Manual)

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Maintenance-2023/17

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 06.11.2025

Subject: Modification of Clause 19L of GCC-2023 for Maintenance Works.

The clause 19L in GCC-2023 for Maintenance Works is being modified:

Existing Provision	Modified Provision
Clause 19 L Contribution of EPF and ESI The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis. The verification of deployment labour will be done through biometric attendance system or any other suitable method by the Engineer in Charge. The applicable and eligible amount of EPF & ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order	Clause 19 L Contribution of EPF and ESI It will be mandatory for all the agencies to register with ESI and EPFO departments within 30 days of the award of the work unless exempted by the provisions of ESI and / or EPFO and as amended time to time. The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis. The verification of deployed labour will be done through biometric attendance system or any other suitable method by the Engineer in Charge. The agency shall submit an affidavit on a stamp paper of Rs. 100 that the employees were engaged fully and exclusively on the work for which the claim is being made. The applicable and eligible amount of EPF & ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order

This is issued with the approval of DG CPWD.

अधीक्षण अभियंता (सी.एम्.एम्.)
 (चन्द पाल, सी.एम्.एम्.)
 06.11.2025
 (Chander Pal, SE (C&M))

Issued from file No. CSQ/CM/17(1)/2024/ Maintenance e-file 9195855 (DFA/9350595)

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।

1.11.25

D.P. Jindal
 EE (Contract)

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/ Maintenance 2023/18

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

VIDYUT BHAWAN, NEW DELHI

Dated: 27.02.2026

Subject: Modifications in General Rules & Directions, Clause 1 and Schedule E of GCC 2023 Maintenance Works

The following modifications are made in the General Rules & Directions, Clause 1 and Schedule E of GCC 2023 Maintenance Works.

Existing provision	Modified provision
General Rules & Directions 11 (i) The Contractor whose tender 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.	General Rules & Directions 11 (i) The Contractor whose tender is accepted, will be required to furnish performance guarantee as mentioned in Schedule 'E' and within the period specified in Schedule F.
Clause 1 Performance Guarantee (i) The contractor shall submit an irrevocable Performance Guarantee at specified percentage of the tendered amount as mentioned in Schedule 'E', in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance.	Clause 1 Performance Guarantee (i) The contractor shall submit an irrevocable Performance Guarantee as mentioned in Schedule 'E', in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance.
Sl. No. (ii) to (v)	No change
SCHEDULE 'E' Reference to General Conditions of contract Sl. No. (i)	SCHEDULE 'E' Reference to General Conditions of contract No change


 D.P. Jindal
 EE (Contract)

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/Enlist.Rules-2026/Misc./01

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi

Dated: 31.12.2025

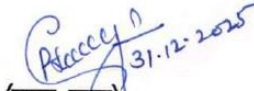
Subject: Rules for Enlistment of Contractors in CPWD, 2026.

The Rules for Enlistment of Contractors in CPWD, 2026 (ER 2026) have been approved by DG CPWD. These rules come into force w.e.f. 01.01.2026. PDF copy is available in the downloadable form on CPWD website and can be accessed through cpwd.gov.in → Documents → CPWD Publication → Rules for Enlistment of Contractors. Discrepancies noticed, if any, in the ER 2026 may kindly be brought to notice of this office immediately.

2. The enlistment of the contractors whose validity expired/expiring between 01.01.2025 to 31.03.2026 shall deemed to be extended upto 31.03.2026 as per OM No. DG/Enlist. Rules - 2024/07 dated 31.10.2025.

3. Further notification regarding applications for fresh enlistment / revalidation is being issued separately.

This issues with the approval of competent authority.


(चन्द्र पाल)
अधीक्षण अभियंता (सी.एंड.एम.)
चन्द्र पाल, अधी. अभि. (सी.एंड.एम.)
Chander Pal, SE (C&M)

Issued from file No. CSQ/CM/18(4)/ER/2026 e-file no. 9036313 (DFA/ 9357938)

Copy to:

1. All the SDGs/ADGs CPWD for information and necessary action.
2. DDG (ERP) for necessary action. He is requested to implement the Rules for Enlistment of Contractors in CPWD, 2026 through CEMS / ERP portal.

		e-mail: adgsrmpwd@nic.in Office phone: 044-24912369
Karnataka	ADG Bengaluru	SE (Works cum TLQA), CPWD 2nd Floor, C Wing, Kendriya Sadan Koramangala, Bengaluru-560034. e-mail: blr-sewtlqa@cpwd.gov.in Office phone: 080-25534968
Andhra Pradesh and Telangana,	ADG Hyderabad	SE (Works cum TLQA), CPWD Nirman Bhawan, Sultan Bazar Koti, Hyderabad-500001. e-mail: hyd-adghr@cpwd.gov.in Office phone: 040-24619327
Note:- Any change in address or other details may be notified by concerned SDG/ADG.		

Table 9: Tendering jurisdiction and Enlisting authorities for Buildings & Roads category contractors of class III, IV and V and Horticulture category contractors of class III and IV:

Sl. No.	Region	Enlisting authority	Tendering Jurisdiction
1.	NR	SDG(Chandigarh), ADG(Chandigarh), ADG(Lucknow), ADG(Jammu), ADG(DR) and ADG(PRD)	Punjab, Chandigarh, Rajasthan, Haryana, Uttarakhand, Himachal Pradesh, Uttar Pradesh, Jammu & Kashmir, Leh & Ladakh and Delhi
2.	SR	SDG(Chennai), ADG(Kochi), ADG(Bengaluru) and ADG(Hyderabad)	Tamil Nadu, Andaman & Nicobar, Puducherry, Kerala, Karnataka, Lakshadweep, Andhra Pradesh, and Telangana
3.	ER	SDG(Kolkata), ADG(Patna) and ADG(Guwahati)	West Bengal, Sikkim, Odisha, Bihar, Jharkhand, Assam, Arunachal Pradesh, Tripura, Nagaland, Meghalaya, Mizoram and Manipur.
4.	WR	SDG(Mumbai) and ADG(Bhopal)	Maharashtra, Goa, Daman and Diu, Gujarat, Madhya Pradesh and Chhattisgarh

केन्द्रीय लोक निर्माण विभाग
कार्यालय झापन

No. DG/CON/Maintenance 2023/19

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Vidyut Bhawan, New Delhi

Dated: 25.03.2026

Subject: Modifications in Clause 6 and Schedule 'F' of GCC 2023 Maintenance Works

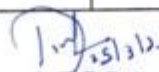
The following modifications are made in the Clause 6 and Schedule 'F' of GCC 2023 for maintenance works, for annual repair and maintenance works, special repair works, comprehensive maintenance works and upgradation works amounting upto Rs. 10 crores in Delhi only.

Existing provision	Modified provision
Clause 6: Computerized Measurement Book (CMB)/ Electronic Measurement Book (EMB) through CPWD ERP portal Engineer-in-Charge with the contract. All measurements and levels of work done during the period covering latter half of the preceding calendar month and first half of the calendar month shall be recorded by the contractor and compiled in the shape of the Computerized Measurement Book (CMB) / Electronic Measurement Book (EMB) through CPWD ERP portal / Computerized Level Book (CLB) respectively having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works executed under the contract during the said period. The proforma Computerised Measurement and level books (along with soft copy) shall be submitted in triplicate through letter of transmittal to the Engineer-in-charge giving details of number of CMBs / CLBs and their number of pages by 20th day of every calendar month. In case of EMB, calendar month.	Clause 6: Computerized Measurement Book (CMB)/ Electronic Measurement Book (EMB) through CPWD ERP portal Engineer-in-Charge with the contract. All measurements and levels of work done during the period covering latter half of the preceding calendar month and first half of the calendar month shall be recorded either by contractor or jointly by department and contractor as specified in Schedule F and compiled in the shape of the Computerized Measurement Book (CMB) / Electronic Measurement Book (EMB) through CPWD ERP portal / Computerized Level Book (CLB) respectively having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works executed under the contract during the said period. The proforma Computerised Measurement and level books (along with soft copy) shall be submitted in triplicate through letter of transmittal to the Engineer-in-charge giving details of number of CMBs / CLBs and their number of pages by 20th day of every calendar month.. No change.

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D.P. Jindal
EE (Contract)

All such monthly his/her authorized representative.	No change.
In case of CMB/CLB, corrected and authorized proforma CMB / CLB.	No change.
In case of EMB, record of measurements available on ERP Portal.	No change.
Once the Engineer-in-charge number of the CMB / CLB /EMB to the Contractor.	No change.
If the contractor fails Clause 25 of this GCC.	No change.
Resources deployed shall be sent to the contractor for his record.	No change.
The contractor the Engineer-in-Charge or his/her representative.	No change.
Except where any is available then a mutually agreed method shall be followed.	No change.
The contractor shall the same was executed.	No change.
Engineer-in-Charge or to such checking of measurements or levels.	No change.
It is also a term of defects liability period.	No change.
PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders)	PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders)
Clause 6 : Computerised Measure Book (CMB) / Electronic Measurement Book (EMB)	Clause6: Computerised Measurement Book (CMB) / Electronic Measurement Book (EMB)


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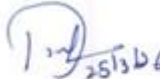
Mode of measurement : CMB / EMB Note:- One option to be kept by NIT approving authority	(a) Mode of measurement: CMB/ EMB (b) Measurement to be recorded either by contractor or jointly by department and contractor. Note:-Only one option to be kept by NIT approving authority in (a) and (b)
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This issues with the approval of DG, CPWD.


 (चन्दर पाल)
 अधीक्षण अभियंता (सी.एंड.एम.)
 चन्द पाल, सी. एंड. एम. (सी.एंड.एम.)
 Chandar Pal, SE (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Maintenance
e-file 9195855 (DFA/ 9355745)

केलोनवि तथा लोनवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनवि वेबसाईट के माध्यम से)


 25/3/22

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केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Maintenance 2023/20

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Vidyut Bhawan, New Delhi

Dated: 18.08.2026

Sub: Modification in Clause 19K: Deployment of Skilled/Semi-Skilled Tradesmen for GCC 2023 Maintenance Works.

Following modification is made in Clause 19K: Deployment of Skilled/Semi-Skilled Tradesmen for GCC 2023 Maintenance Works.

Existing Provision	Modified Provision
Clause 19 K Employment of skilled/ semi-skilled workers The contractor shall, at all stages of work, deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/ National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer in charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in- Charge. Failure on the part of contractor to obtain approval of Engineer-in Charge or failure	Clause 19 K Deployment of skilled/semi-skilled workers The Contractor shall, at all stages of work, deploy skilled and semi-skilled tradesmen who are duly qualified and hold certificates in their respective trades, from the CPWD Training Institute, or from awarding bodies recognized under the aegis of National Council for Vocational Education and Training (NCVET), Ministry of Skill Development and Entrepreneurship (MSDE), or any institute recognized/certified by the State or Central Government for this purpose. The number of such qualified tradesmen shall not be less than 20% of the total skilled/semi-skilled workers required in each trade at any stage of work. The Contractor shall submit, for approval of the Engineer-in-Charge, the number of man-days required for each trade, the proposed scheduling, and the list of qualified tradesmen along with requisite certificates issued by any of the above recognized institutes. To make up any shortfall below the prescribed minimum limit of 20% of skilled/semi-skilled tradesman, the Contractor shall arrange skilling of

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Agaykum
18/8/2026
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to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate specified in schedule 'F' per such tradesman per day. Decision of Engineer in Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding. Provided always, that the provisions of this clause, shall not be applicable for works with estimated cost put to tender being less than Rs. 5 crores. For work costing more than Rs. 10 Crores, and upto Rs. 50 Crores, the contractor shall arrange on site training as per National Skill Development Corporation (NSDC) norms for at least 20% of the unskilled workers engaged in the project in co-ordination with the CPWD Regional Training Institute & National Skill Development Corporation (NSDC) for certification at the level of skilled/semi-skilled tradesmen. For work costing more than Rs. 50 Crores, the contractor shall arrange on site training as per National Skill Development Corporation (NSDC) norms for at least 30% of the unskilled worker engaged in the project in coordination with the CPWD Regional Training Institute & National Skill Development Corporation (NSDC) for certification at the level of skilled/semi-skilled tradesmen. The cost of such training as stated above shall be born by the Government. The necessary space and workers shall be provided by the contractor and no claim what so ever shall be entertained.

workers at site under the Recognition of Prior Learning (RPL) program, conducted by awarding bodies recognized under NCVET or any institute recognized/certified by the State or Central Government for this purpose. The cost of such recognition/training, including the infrastructure required at site, shall be borne by the Contractor. The tradesmen undergoing training shall be paid their wages by the contractor for period during the training, and no reimbursement in this respect shall be made by the Government.

This provision shall not be applicable for works with an estimated cost put to tender of less than ₹5 Crore in case of construction works and less than ₹50 Lakh in case of maintenance works.

In the event, the contractor fails to provide the mandatory training to the tradesmen, a penalty of ₹1,000 per day per tradesman falling short of the required 20% target shall be imposed on the Contractor. Decision of Engineer in Charge shall be final and binding in this regard.

This issues with the approval of DG CPWD.

(चन्द्र पाल)
अधीक्षण अभियंता (सी.एंड.एम.)

Issued from file No. CSQ/CM/17(1)/2026/ Maintenance e-file 9196031 (DFA/ 9388060)

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।

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L. S. Meena
AE (C-II)

PART- C

SCHEDULE OF QUANTITIES

Schedule of Quantities (Civil Work)

Name of Work-Repair and Maintenance work of CBI Pool Quarters Building no-222 at Pant Nagar Ghatkopar (East), Mumbai.

S.N.	Description	Qty	Unit	Rate	Amount	DSR No. 2023	
1	CLADDING WORK					8	
1.1	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels.					8.2	
1.1.1	Granite stone slab of colour black, Cherry/Ruby red					8.2.2	
1.1.1.1	Area of slab upto 0.50 sqm	20.00	sqm	5413.50	108270.00	8.2.2.1	SR
1.1.1.2	Area of slab over 0.50 sqm	10.00	sqm	5136.30	51363.00	8.2.2.2	SR
1.2	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3(1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	10.00	sqm	1267.95	12680.00	8.31	SR
2	WOOD AND P. V. C. WORK					9	
2.1	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets :					9.47	
2.1.1	25 mm dia (heavy type)	100.00	metre	186.40	18640.00	9.47.2	SR
2.2	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.					9.48	
2.2.1	Fixed to steel windows by welding	136.00	kg	219.10	29798.00	9.48.1	SR
2.3	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete :					9.70	

2.3.1	100X58X1.90 mm	80.00	each	107.10	8568.00	9.70.2	
2.3.2	75x47x1.80 mm	80.00	each	80.05	6404.00	9.70.3	
2.3.3	50x37x1.50 mm	80.00	each	43.75	3500.00	9.70.4	
2.4	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					9.97	SR
2.4.1	250x10 mm	60.00	each	115.15	6909.00	9.97.2	
2.4.2	100x10 mm	120.00	each	64.70	7764.00	9.97.5	
2.5	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					9.100	SR
2.5.1	125 mm	60.00	each	66.25	3975.00	9.100.1	
2.6	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge.					9.170	
2.06.01	200 mm	120.00	each	186.65	22398.00	9.170.1	SR
2.7	Providing and fixing stainless steel soft closing spring hinges at 0 degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction of Engineer-in-charge.	150.00	each	272.00	40800.00	9.171	
3	FLOORING					11	
3.1	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick CementMortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc., complete.	10.00	sqm	1439.40	14394.00	11.40	SR
3.2	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with					11.41	

	white cement and matching pigments etc., complete.						
3.2.1	Size of Tile 600x600 mm	10	sqm	1553.45	15535.00	11.41.2	SR
3.3	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3 kg/ sqm.	30	sqm	-850.10	-25503.00	11.42	
3.4	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	30.00	sqm	156.05	4682.00	11.43	SR
3.5	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.					11.46	
3.5.1	Size of Tile 600x600 mm	5.00	sqm	1623.05	8115.00	11.46.2	SR
3.6	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	10.00	sqm	738.65	7387.00	12.50	
4	FINISHING					13	

4.1	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gram/litre, of approved manufacturer and of required shade and colour all complete to achieve even shade and colour:					13.41	SR
4.1.1	New work (two or more coats) over and including water thinnable priming coat with cement primer having VOC content less than 50 gram/litre	300.00	sqm	185.65	55695.00	13.41.1	
4.2	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :					13.61	
4.2.1	Two or more coats on new work	100	sqm	155.90	15590.00	13.61.1	SR
4.3	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	300.00	sqm	156.05	46815.00	13.80	SR
4.4	Distempering with 1st quality acrylic distemper (ready mixed) having VOC (Volatile Organic Compound) content less than 50 gram/ litre, of approved brand and manufacturer including applying additional coats wherever required to achieve even shade and colour					13.81	SR
4.4.1	Old work (one or more coats)	500.00	sqm	62.70	31350.00	13.81.1	
4.5	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	300.00	sqm	19.75	5925.00	13.88	
4.6	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:					13.99	SR
4.6.1	One or more coats on old work	350.00	sqm	102.80	35980.00	13.99.1	
4.7	Finishing walls with Acrylic Smooth exterior paint of required shade :					13.111	
4.7.1	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	1200.00	sqm	120.75	144900.00	13.111.1	SR

4.8	Providing and applying Ready Mix Plaster of approved brand and manufacturer. having minimum compressive Strength of 6.0MPa. of specified thickness in one coat on new/old surface of walls/ceiling, using factory produced. pre-blended. premixed. formulated ready-mix mortar supplied in dry form requiring only the addition of water at the site before start of application and including applying Portland cement slurry @0.40 Kg/Sqm applied on hacked/uneven background such as bare brick/CC and Block/RCC surface after preparation of surface etc. complete as per manufacturer's specification finished in smooth line and level at locations and all floors.					13.117	SR
4.8.1	12 mm thick	50.00	sqm	488.80	24440.00	13.117.2	
5	REPAIRS TO BUILDING					14	
5.1	Repair to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.	20.00	sqm	670.95	13419.00	14.75	
5.2	Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.					14.80	
5.2.1	Orissa pattern W.C Pan of size 580x440 mm	3.00	each	4478.75	13436.00	14.80.2	SR
5.3	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	10.00	each	429.10	4291.00	14.85	SR

5.4	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/litre and viscosity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :				each	14.90	
5.4.1	3 mm thick	50.00	sqm	537.45	26873.00	14.90.1	
6	Dismantling and Demolishing					15	
6.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.					15.2	
6.1.1	Nominal concrete 1:4:8 or leaner mix (including equivalent design mix)	2.00	cum	1503.60	3007.00	15.2.2	SR
6.2	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :					15.12	
6.2.1	Of area 3 sq. metres and below	120.00	Each	376.20	45144.00	15.12.1	SR
6.2.2	Of area beyond 3 sq. metres	20.00	Each	502.00	10040.00	15.12.2	SR
6.3	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					15.23	
6.3.1	For thickness of tiles 10 mm to 25 mm	100.00	sqm	73.40	7340.00	15.23.1	SR
6.4	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	7.00	each	112.05	784.00	15.52	SR

6.5	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	42.00	sqm	54.65	2295.00	15.56	SR
6.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	20.00	cum	263.95	5279.00	15.6	SR
7	SANITARY INSTALLATIONS					17	
7.1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :					17.2	
7.1.1	W.C. pan with ISI marked white solid plastic seat and lid	3.00	each	6515.55	19547.00	17.2.1	SR
7.2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:					17.7	
7.2.1	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	5.00	each	2301.75	11509.00	17.7.3	SR
7.3	Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.					17.18	
7.3.1	10 litre capacity - White	8.00	each	1190.75	9526.00	17.18.1	SR
7.4	Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :					17.20	
7.4.1	White solid plastic seat with lid	8.00	each	684.85	5479.00	17.20.1	SR
7.5	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.					17.28	
7.5.1	Flexible pipe					17.28.2	
7.5.1.1	32 mm dia	10.00	each	119.55	1196.00	17.28.2.1	SR
7.5.1.2	40 mm dia	10.00	each	119.55	1196.00	17.28.2.2	SR

7.6	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	10.00	each	1607.95	16080.00	17.31	SR
7.7	Providing and fixing soil, waste and vent pipes :					17.35	
7.7.1	100 mm dia					17.35.1	
7.7.1.1	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	10.00	metre	1180.75	11808.00	17.35.1.2	SR
7.7.2	75 mm diameter :					17.35.2	
7.7.2.1	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	10.00	metre	1186.00	11860.00	17.35.2.2	SR
7.8	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 :					17.36	
7.8.1	75 mm dia pipe	8.00	each	168.20	1346.00	17.36.1	SR
7.8.2	100 mm dia pipe	8.00	each	198.15	1585.00	17.36.2	SR
7.9	Providing and fixing plain bend of required degree.					17.39	
7.9.1	100 mm dia					17.39.1	
7.9.1.1	Sand cast iron S&S as per IS : 3989	4.00	each	570.05	2280.00	17.39.1.2	SR
7.9.2	75 mm dia					17.39.2	
7.9.2.1	Sand cast iron S&S as per IS - 3989	4.00	each	390.50	1562.00	17.39.2.2	SR
7.10	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 :					17.6	
7.10.1	100 mm inlet and 75 mm outlet					17.60.2	
7.10.1.1	Sand cast iron S&S as per IS - 3989	5.00	each	1975.15	9876.00	17.60.2.1	SR
8	WATER SUPPLY					18	
8.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply and all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall					18.7	
8.1.1	20 mm nominal dia Pipes	25.00	metre	335.00	8375.00	18.7.2	SR
8.2	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :					18.18	
8.2.1	20 mm nominal bore	2.00	each	462.50	925.00	18.18.2	SR

8.3	Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support Including fittings & fixtures for tank shall be paid separately.	500.00	per litre	11.00	5500.00	18.48A	SR
8.4	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :					18.49	
8.4.1	15 mm nominal bore	3.00	each	506.80	1520.00	18.49.1	SR
8.5	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.					18.51	
8.5.1	15 mm nominal bore	2.00	each	798.95	1598.00	18.51.1	SR
8.6	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.					18.52	
8.6.1	15 mm nominal bore	4.00	each	670.45	2682.00	18.52.1	SR
8.7	Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms	10.00	each	121.40	1214.00	18.64	SR
8.8	Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.					18.74	
8.8.1	15 mm nominal bore with 45 cm length	6.00	each	121.90	731.00	18.74.2	SR
8.9	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.					18.75	
8.9.1	20 mm nominal bore, weighing not less than 40 gms	6.00	each	93.45	561.00	18.75.2	SR
9	DRAINAGE					19	
9.1	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :					19.26	
9.1.1	Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5	3.00	each	2625.50	7877.00	19.26.1	SR
10	ALUMINIUM WORK					21	

10.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :					21.1	
10.1.1	For fixed portion					21.1.1	
10.1.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	3200.00	kg	530.90	1698880.00	21.1.1.2	SR
10.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)					21.1.2	
10.1.2.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	2200.00	kg	634.45	1395790.00	21.1.2.2	SR
10.2	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):					21.3	
10.2.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	150.00	sqm	1505.25	225788.00	21.3.2	SR
10.3	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.					21.8	
10.3.1	Upto 5 mm depth and 5 mm width	300.00	metre	96.75	29025.00	21.8.1	SR
11	WATER PROOFING					22	

11.1	Grading roof for water proofing treatment with					22.14	SR
11.1.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	2.00	cum	8042.30	16085.00	22.14.1	
12	NEW TECHNOLOGIES AND MATERIALS					26	
12.1	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge					26.28	
12.1.1	25 mm average thickness	100.00	sqm	126.75	12675.00	26.28.3	SR
12.2	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.					26.29	
12.2.1	Bars upto 12 mm diameter	100.00	metre	8.25	825.00	26.29.1	SR
12.3	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer- In-charge complete in all respect.					26.31	
12.3.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	100.00	sqm	141.20	14120.00	26.31.1	SR
12.4	Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge. Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal					26.32	

	instrument and/or the 75 mm size cube crushing strength at the end of 28 days to be not less than 30 N/Sqmm2).						
12.4.1	12 mm average thickness.	40.00	sqm	388.65	15546.00	26.32.1	SR
12.4.2	25 mm average thickness in 2 layers.	60.00	sqm	587.35	35241.00	26.32.2	SR
12.5	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/Clerestory windows & other Frames/ Chowkhat comprising of virgin PVC polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/ wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm2, modulus of elasticity 900 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-In- Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately). Note: For WPC solid door/window frames, minus 5 mm tolerance in dimensions i.e depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.					26.86	
12.5.1	Frame size 45 x 70 mm	60.00	metre	705.85	42351.00	26.86.1	SR
12.5.2	Frame size 50 x 100 mm	70.00	metre	947.70	66339.00	26.86.3	

12.6	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)					26.88	SR
12.6.1	30 mm thick	20.00	sqm	4764.20	95284.00	26.88.1	
12.7	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white color and other side of board laminted with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/ kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary					26.89	

	full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)						
12.7.1	18 mm thick	30.00	sqm	2992.90	89787.00	26.89.1	SR
12.7.2	25 mm thick	30.00	sqm	3889.15	116675.00	26.89.2	SR
12.8	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In-Charge. (Note: stainless steel screws shall be paid separately)					26.9	
12.8.1	12 mm thick	10.00	sqm	1711.10	17111.00	26.90.2	SR
	Total of DSR Items				4845637.00		
	Modified Estimated Cost after using correction factor on DSR 2023 on account of GST @ 0.973				4714804.80		
	Add cost Index @17%				801516.82		
	Total (A)				5516322.00		
13	Non Schedule Items						
13.1	Providing and fixing zinc alloyed white powder-coated touch lock for aluminium sliding windows, complete with stainless steel screws and all accessories, of approved make such as Godrej, Hardwyn, Häfele, Kin Long, Ebco, Hettich, Yale, Dorset, Ozone or equivalent, complete as direction of the Engineer-in-Charge.	200.00	Each	231.55	46310.00	NS-1	

13.2	Providing and fixing steel roller for Aluminium sliding window with necessary screws etc. of approved make such as Godrej, Hardwyn, Häfele, Kin Long, Ebco, Hettich, Yale, Dorset, Ozone or equivalent, complete as direction of the Engineer-in-Charge.	300.00	Each	131.15	39345.00	NS-2
13.3	Taking out existing MS grill in window and refixing of repaired MS Grill to existing Window frames, including Dash fastner/ chemical fastener, etc. as required, all complete as per the direction of the Engineer-in-charge.	150.00	Each	416.20	62430.00	NS-3
13.4	Removing/ Scraping existing APP modified bituminous waterproofing membrane of all thicknesses from roof/terrace by manual means, including heating wherever required, scraping the membrane completely, removing adhesive/bitumen residue, cleaning the surface ready for new waterproofing treatment, and disposing of the dismantled material and debris within the municipal limits or as directed by the Engineer-in-Charge, complete.	50.00	sqm	151.30	7565.00	NS-4
13.5	Providing and fixing fly proof stainless steel grade 304 wire gauge, in aluminium door, window, ventilator shutters and partitions etc. using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):	80	sqm	1333.75	106700.00	NS-5
13.6	Credit item for taking away dismantled materials received from work such as reinforcement bars, G.I. pipes, MS Water tanks, M.S. grills etc. as per the direction of the Engineer-in-Charge.	50.00	Kg.	-27.50	-1375.00	NS-6
13.7	Credit item for taking away dismantled materials received from work such as CI Pipes and fittings etc.	50.00	kg	-23.75	-1188.00	NS-7
13.8	Credit for taking away the dismantled material (unserviceable) wooden door /window/cupboard member etc.	220.00	Each	-166.62	-36656.00	NS-8
13.9	Credit item for taking away dismantled materials received from work such as PVC Flushing cistern of any type upto 10 litres capacity	10.00	Each	-79.15	-792.00	NS-9

13.10	Credit item for taking away dismantled materials received from work such as All types of CP Brass bib cocks, stops & pillar cocks	5.00	kg	-333.20	-1666.00	NS-10
13.11	Providing and applying P.U. waterproofing with one coat of Dr. Fixit Primeseal primer dilute with water in the ratio 2:1 spreading at the rate of 8.0 – 10.0 / Sq.mt / Litre in the SSD condition. Allow the primer coat to dry for 6 to 8 hours. Apply 1st coat of Dr. Fixit Roofseal Ultra without dilution spreading at the rate of 0.70/litre/Sq.mt/Coat until all surface is covered. Lay a 45 GSM Fibre glass mesh as a reinforcing material which is incorporated in the coating when the first coat is still in wet condition. Allow the first coat to dry for approximately 4 to 6 hours. Apply the second and third coats of Dr. Fixit Roofseal Ultra with the same application coverage, but in a direction perpendicular to that of the first and second coats. Allow each coat to air cure for a minimum of 4-6 hours after application to achieve total dry film thickness of 900 to 1000 microns at forced coverage at the rate of 1.50 litre / Sq.mt in 3 coats. Check to see no void surface is left untreated / uncoated. Allow the system to air cure for 7 days minimum. Meet and exceeds the ASTM D 6083 - 97a standard specification. Attains a Tensile strength of ≥ 4.00 N/mm ² with 45 GSM glass fibre mesh confirming to ASTM D 412; Elongation at break $\geq 300\%$ and crack bridging ability up to 3 mm, Solar Reflectance Index as per ASTM E 1980 – 105, Water permeability @5 bar – Nil as per EN12390 - 8:2019. Air cures the coating for 7 days etc. as per direction of Engineer in charge.	50.00	sqm	1041.40	52070.00	NS-11
	Total (B)				2,72,743.00	
	Total (A+B)				57,89,065.00	

Executive Engineer (C)
Navi Mumbai-II, CPWD

PART- D

(PRICE BID)



CENTRAL PUBLIC WORKS DEPARTMENT

NIT No.: 09/EE/Navi Mumbai-II/2026-27

Name of Work:- Repair and Maintenance work of CBI Pool Quarters Building No. 222 at Pant Nagar Ghatkopar (East), Mumbai.

PRICE BID

Name of the Contractor

<i>Name of component</i>	<i>Estimated cost</i>	<i>Percentage above or below the estimated cost</i>	<i>% in Figures</i>	<i>Total Cost</i>
CIVIL	Rs. 57,89,065/-			
Grand Total	Rs. 57,89,065/-			

Grand Total in Words: Rupees Fifty Seven Lakh Eighty Nine Thousand Sixty Five Only