भारत सरकार/ GOVERNMENT OF INDIA
क्रेन्द्रीय लोक निर्माण विभाग/ CENTRAL PUBLIC WORKS DEPARTMENT
राजमहेन्द्रवरम / RAJAMAHENDRAVARAM
Phone: **0883-2460293**
e-mail Id: aermv2026@gmail.com

NIT

NIT No: 41/2026-27/EE/CPWD/Vijayawada

Name of Work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

NIT Amount : Rs.3,56,659/-

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Name of Work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

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Certified that this DRAFT N.I.T contains 155 (One Hundred and Fifty-Five pages

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CENTRAL PUBLIC WORKS DEPARTMENT
Notice Inviting e-Tenders

The Assistant Engineer (C), CPWD, Rajamahendravaram, invites on behalf of President of India online percentage rate bids from approved and eligible Contractors of CPWD (Building Category) for the following work:

NIT No: 41/EE/(VJA)/2026-27

Name of Work	**:** Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.
Estimated Cost	**: Rs. 3,56,659/-**
Earnest Money Deposit	**: Rs.7,133/-**
Period of Completion	**: 60 days**
Last time and date of submission of bid	**: Up to 17:00 Hours on 13.11.2026**

The bid forms and other details can be obtained from the website **https://etender.cpwd.gov.in or www.cpwd.gov.in. Further modification or change of dates, if any, can be seen in the above stated tender web sites.**

Approved by

Assistant Engineer (C),
CPWD, Rajamahendravaram.

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING
FORMING PART OF BID DOCUMENT AND TOBE POSTED ON WEBSITE
(Applicable for inviting open bids)

The Assistant Engineer(C), CPWD, Rajamahendravaram, invites on behalf of President of India online percentage rate bids from approved and eligible Contractors of CPWD (Building Category) for the following work:

Sl. No.	Description	Details
1	NIT No.	**41/2026-27/EE/CPWD/Vijayawada**
2	Name of Work	Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.
3	Estimated Cost Put to Tender	Rs.3,56,659/-
4	Earnest money (EMD)	Rs.7,133/-
5	Period of completion	60 days
6	Last date & time of online submission of bid, original EMD, copy of receipt for deposition of original EMD, and other documents as specified in the press notice.	Up to 17:00 Hours on 13.11.2026
7	Time & date of online opening of documents. (Mandatory documents)	At 18:00 Hours on 13.11.2026
8	Time & date of online opening of financial bids.	At 18:00 Hours on 13.11.2026
9	Last date & time of submission of hard copies of receipt for deposition of EMD, Registration Certificates, Affidavit if any, Undertaking and other Documents as specified in the press notice to the Sub-Division Office by the Lowest Tenderer Only.	To be submitted during office hours within a week from the date of opening of Financial Bid. In case the last day happens to be closed holiday, these documents shall be submitted on the next working day.

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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 contractor can deposit original EMD either in the office of Executive Engineer inviting bids division or sub-division office of any Executive Engineer/Assistant Engineer, CPWD within the period of bid submission. The contractor shall obtain the receipt of EMD from the concerned Executive Engineer/Assistant Engineer (including NIT issuing EE) in the prescribed format uploaded by NIT issuing /Assistant Engineer. The bid document as uploaded can be viewed and downloaded free of cost by anyone including intending bidder. But the bid can only be submitted after uploading the mandatory scanned documents such as Account Payee Demand Draft/Banker's Cheque /FDR/Insurance Security Bond/ Bank Guarantee of any Commercial Bank towards EMD in favour of respective Executive Engineer, copy of receipt of original EMD and other documents specified in the press notice.
4. 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 the Assistant Engineer, CPWD, Rajamahendravaram and also can be downloaded from website https://etender.cpwd.gov.in or www.cpwd.gov.in free of cost.

   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 respects including updates thereof, if any. An incomplete application may be liable for rejection.

5. 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 Bankers Cheque or Fixed Deposit Receipts or/ and Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer, Vijayawada Central Division, CPWD, Vijayawada, receipt for deposition of original EMD to division office of
6. any Executive Engineer (including NIT issuing EE/ AE), CPWD and other documents as specified.
7. Those contractors, who are not registered or have not updated their profile on the website mentioned above, are required to get registered / update their profile beforehand. The necessary training materials including the videos with step to step process available on download section of https://etender.cpwd.gov.in.
8. The intending bidder must have valid class-III digital signature certificate with encryption key (Combo type) to perform any operations / transactions on the e-tendering portal / Website and the bidder should download and install the eMsigner on

their system as per instructions available on download section of https://etender.cpwd.gov.in.

9. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
10. Contractor can upload documents in the form of JPG format and PDF format.
11. a) The 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.

    b) Tenderer shall quote the percentage rate above or below to two places of decimals only.

    c) The tenderer shall quote only one overall percentage rate above or below on the designated place, which shall be applicable on both Civil and E&M components.
12. 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" (ZERO). However, if a bidder quotes nil rate, the bid shall be treated as invalid and he will not be considered as lowest bidder

    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 considered 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 – 9 of CPWD-6 for further details.

13. Tenders with any condition including that of conditional rebates shall be rejected forthwith. The Department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified
14. contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criteria.
15. Any dispute arising out of this tender including dispute related to encashment of any Bank Guarantee/ FDR etc., shall be subject to the jurisdiction of courts of Andhra Pradesh State only.

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

1.	Treasury Challan/Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR/ Bank Guarantee of any Scheduled Bank **against EMD, as specified in Para 7 of CPWD – 6 for e - Tendering.**
2.	Enlistment order of the Contractor
3.	GST registration certificate of the State in which the works is to be taken up, 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. "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".
4	Receipt for deposition of original EMD issued from division office of any Assistant Engineer/Executive Engineer (Including NIT issuing AE, CPWD) (Form–C).
5	ERP Certificate to be uploaded
6	Declaration of Site Inspection

NOTE:

Work Details:

{1}: The affidavit must clearly mention the Name of the Work and the corresponding NIT (Notice Inviting Tender) Number without any ambiguity.

{2}: **Continuity of Document:** The affidavit should be prepared as a continuous document, maintaining proper flow and sequence of content without breaks or disjointed sections.

{3}: **Multiple Pages (if applicable):** If the content of the affidavit exceeds one page, it may be continued onto subsequent pages. However, all pages must form part of a single, continuous affidavit.

- **Mandatory Details on Each Page**:
  Every page of the affidavit (including additional pages) must contain the following:
  a) Affidavit / Stamp Certificate Number
  b) Signature of the deponent/authorized signatory
  c) Page Number (clearly indicating sequence, e.g., Page 1 of 3)
  d) Date of signing

- **Authentication:**
  All pages must be properly signed and authenticated to ensure validity and to avoid rejection during verification.

Note: The Postal address of Executive Engineer, Vijayawada may be noted as below for correspondence and submission of Physical documents.

Assistant Engineer (C),
Rajamahendravaram,
Aayakar Bhavan Premises, Kambala Cheruvu,
Rajamahendravaram-533105
E-mail Id: aermv2026@gmail.com

Assistant Engineer (C),
CPWD, Rajamahendravaram.

CPWD-6

GOVERNMENT OF INDIA

CENTRAL PUBLIC WORKS DEPARTMENT NOTICE

INVITING TENDERS

Online percentage rate bids are invited on behalf of President of India from approved and eligible Contractor for the work "Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada".

The work is Estimated to Cost **Rs.3,56,659/-.** This estimate, however, is given merely as a rough guide.

1. Agreement shall be drawn with the successful bidder on prescribed Form No. CPWD 7 (or other standard form as mentioned) which is available as a Govt. of India publication and also available on website : http://etender.cpwd.gov.in . Bidders shall quote their 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 60 days 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. The bid document consisting of 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 http://etender.cpwd.gov.in , free of cost.
4. 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.
5. The EMD as per Form C shall be duly signed and uploaded to the e-tendering website within the period of bid submission.
6. Copy of Enlistment Order and other documents as specified in the press notice shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder only along with ORIGINAL within a week physically in the office of tender opening authority.
7. Online bid documents submitted by intending bidders shall be opened only of those bidders who has uploaded Receipt of EMD duly signed. The bid submitted shall be opened at **18:00 Hours on 13.11.2026.**
8. The bid submitted shall become invalid and cost of bid & e-Tender processing fee shall not be refunded if:

   (i) The bidder is found ineligible.

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(ii) The bidder does not upload all the documents (including Service Tax registration) as stipulated in the bid documents.

(iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically in the office of tender opening authority.

(iv) The bidder does not deposit the original receipt for deposition of EMD, Registration Certificates within the period of submission as notified in the NIT.

9. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than ₹ 10,000/-) or Deposit at Call receipt of any scheduled bank / Banker's cheque of any scheduled bank / Demand Draft of any scheduled bank / Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India 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 by the successful bidder submitted at the time of tender shall be returned on submission of 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 within the period specified in schedule F.

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 work, the accommodation they may require in general and 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 their 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

11. 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.

13 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.

14. 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 tenders are received satisfying the laid down criterion.

15. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.

16 The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.

17. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture / Nursery category) responsible for award and execution of contracts, in which his near relative is posted 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.

18. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the 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.

19. The bid for the works shall remain open for acceptance for a period of Thirty (30) days from the date of opening of bid. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.

20. This notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the accepting authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

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 or other Standard C.P.W.D. Form as applicable.

21 In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of the tender opening authority, then the bid submitted shall become invalid and the government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.

22. In case of reduction in scope of work no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc shall be entertained.

Signature of the Assistant Engineer(C)
For & on behalf of President of India

(Form-C)

Receipt of deposition of original EMD

(Receipt No……...../ Date…….)

1. Name of Work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

2. NIT No : 41/EE/(VJA)/2026-27

3. Estimated Cost : Rs. 3,56,659/-

4. Amount of Earnest Money Deposit : Rs.7,133/-

5. Last date of submission of bid : 13.11.2026

1. Name of Contractor……#

2. Form of EMD……..…..#

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

4. Date of submission of EMD……...#

Signature, Name and Designation of EMD receiving officer (EE/AAO/AE) Along with Office Stamp

(# to be filled by EMD receiving EE or NIT issuing EE, as the case may be)

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C.P.W.D – 7

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT

STATE : Andhra Pradesh ZONE : CE, VIJAYAWADA DIVISION: EE,Vijayawada

BRANCH : B & R SUB-DIVISION : AE (C), RMV

PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the work of: "Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada".

(i) To be uploaded online by 17:00 hours on 13.11.2026 through website https:/etender.cpwd.gov.in or www.cpwd.gov.in

(ii) To be opened in the presence of tenderers who may be present at **18:00 Hours on 13.11.2026** in the office of the Assistant Engineer (C), CPWD, Rajamahendravaram.

Issued to: _*_____
(Contractor)

Signature of Officer issuing the documents *_____

Designation __*_____

Date of Issue: _*_____

T E N D E R

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

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

I / We agree to keep the tender open for 30 days from the date of its opening of financial bid and not to make any modifications in its terms and conditions. The EMD as per Form C has been submitted. 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 debar me from tendering for a period of one year from the date of opening of bid. Further, if I / We fail to commence work as specified, I / We agree that President of India or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely, otherwise, the said performance guarantee shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I/ We agree that in case of non-submission of Performance guarantee within due date as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

Dated _____ Signatures of Contractor

Postal Address

Witness:

Address

SCHEDULES A to F

SCHEDULE 'A'

Schedule of Quantities (as per PWD – 3) (Enclosed) : 155

Estimated Cost Put to Bid: Rs.3,56,657/-

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

S. No.	Description of Item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
N I L				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S. No.	Description	Hire charges per day	Place of Issue
1	2	3	4
N I L			

SCHEDULE 'D'

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

- N I L-

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SCHEDULE 'E'

Reference to General Conditions of Contract: GCC 2023 for CPWD maintenance works as modified and amended up to the last date of submission of bids

Name of work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

Estimated Cost Put to Tender: Rs.3,56,659/-

This estimate however, is given merely as a rough guide.

(i) Earnest money :	Rs.7,133/-
(ii) Performance Guarantee:	a)5% of tendered value or Estimated Cost Put to Tender (ECPT) (whichever is higher). b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
(iii) Security Deposit:	2.5% of accepted tendered value

SCHEDULE 'F'

General Rules &Directions:

Officer inviting tender:	Assistant Engineer (C), CPWD, Rajamahendravaram.
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 under clause 12
Definitions	
2(v) Engineer-in-Charge	Assistant Engineer(C), CPWD, Rajamahendravaram.
2(viii) Accepting Authority	Assistant Engineer(C), CPWD, Rajamahendravaram.
2(x) Percentage on cost of materials and labour to cover all overheads and profits	15 % (Fifteen)

2(xi) Standard schedule of Rates : DSR-2023 with up-to-date correction Slips and Market Rates

2(xii) Department : Central Public Works Department

9 (ii) Standard CPWD contract Form : CPWD Form 7 of GCC 2023 for CPWD maintenance works as modified and amended up to the last date of submission of bids

Clause 1

(i) Time allowed for submission of performance Guarantee, programme chart (Time and progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance **:** 7 days

(ii) Maximum allowable extension with late fee at 0.1% per day of performance Guarantee amount beyond the period as provided in (i) above **:** 3 days

Clause 2

Authority for fixing compensation: under clause-2. : Executive Engineer, CPWD, Vijayawada

Clause 2A

Whether clause 2A shall be applicable : Not Applicable

Clause 5

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

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Mile stone(s) as per table given below

TABLE OF MILESTONE (S) for CIVIL WORKS			
Time Period allowed for Completion of Work: 60 days			
SI. No.	**Milestone Programme**	**Time Allotted (From date of start)**	**Amount in % of the tendered value work to be withheld in case of non -achievement of milestone**
1.	1/4th of the Tendered Amount	15 days	1% of accepted tendered amount.
2.	1/2 of the Tendered Amount	30 days	1% of accepted tendered amount.
3.	3/4th of the Tendered Amount	45 days	1% of accepted tendered amount.
4.	Completion in all respects and handing over	60 days	1% of accepted tendered amount.

Note : 1. The amount so withheld may be released, if specifically requested by the contractor, on submission of Bank Guarantee in prescribed proforma.

2. Intending tenderer may submit physical activities/mile stones on the basis of their resources and methodology at the time of tendering corresponding to physical mile stones /stages as indicated in the above table. These shall be formed part of agreement after approval of the accepting authority, otherwise it would be assumed that agency agrees with the above-mentioned physical mile stones.

(i)Authority to convey the decision of shifting of milestone and Extension of time	Executive Engineer, VJA, CPWD, Vijayawada or his successor there of Chief Engineer, Vijayawada, CPWD
(ii) Authority to decide Rescheduling of mile stones and extension of time	Chief Engineer, Vijayawada, CPWD or his successor thereof
(iii) Shifting of date of start in case of delay in handing over of site	Chief Engineer, Vijayawada, CPWD or his successor thereof

Clause 5.1(b)(iv) In case of non submission of time and progress chart & progress report using mutually agreed software/format	:	**NA**
Clause 6 Computerised Measurement Book (CMB)/ Electronic Measurement Book (EMB) Mode of Measurement	:	CMB
Clause 7 Gross work to be done together with net Payment / adjustment of advances for material collected, if any since the last such payment for being eligible to interim payment	:	**Rs. 1.96 Lakhs**
Clause 7 A Whether Clause 7A shall be applicable	:	Yes (a) 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 employees 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.

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		(c) ln 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.
Clause 8A Authority to decide compensation on Account - if contractor fails to submit completion plans	:	Chief Engineer, Vijayawada, CPWD or his successor thereof
Clause 10A List of testing equipment's to be provided by the contractor at site	:	**Not Applicable**
Clause 10 B (ii) Whether clauses 10 B (ii) shall be applicable	:	**Not Applicable**
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 Vol I & II with up-to-date correction slips
Clause 12	:	
Type of Work:		**Maintenance work.** 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 items, deviations so that completion cost does not exceed above limit. Work executed beyond above limit will neither be recorded nor be paid. Engineer-in-Charge will verify and confirm the alerts before assigning deviations and / or extra items 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 claims whatsoever on this account.
12.2: Deviation Limit beyond which clauses12.2 shall apply for building work.	:	**No limit**
(i) Deviation Limit beyond which clauses 12.2 shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items)		**No limit**
(ii) Deviation Limit for items mentioned in earth work subhead of DSR and related items		**No limit**
Clause 16 Competent Authority for deciding reduced rates	:	Chief Engineer, CPWD, Vijayawada or his Successor thereof
Clause 18 List of mandatory machinery, tools & plants to be deployed by the contractor at site	:	As per actually required at site and shall be arranged by the contractor as per the directions of Engineer-in-charge.
Clause 19 C	:	Executive Engineer, Vijayawada CPWD, Vijayawada or successor thereof is authority to decide penalty for each default
Clause 19 D	:	
Clause 19 G	:	
Clause 19 K	:	
Clause: 25 (i) Conciliator (ii) Arbitrator Appointing Authority (iii) Place of arbitration	: : :	Additional Director General, Region- Hyderabad. Chief Engineer - Vijayawada, CPWD, Vijayawada. Vijayawada.

Clause: 31 : Yes, Applicable

Clause 32: Requirements of Technical Representative (s) and Recovery Rates:

Sl. No.	Requirement of Technical Staff		Minimum experience (Years)	Designation of technical staff	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32
	Qualification	**Number (Major/ Component)**			
1	Graduate Engineer Or Diploma Engineer	**1**	2 or 5 respectively	Project Manager cum Planning / Quality / Site / Billing Engineer	Rs.15,000/- per month per person.

Note: -

1. Assistant Engineer retired from Government services who are holding Diploma will be treated at par with Graduate Engineers.
2. 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

(i) (a) Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2023 printed by C.P.W.D with correction slips up to the last date of submission of bids.

(ii) Variations permissible on theoretical quantities.

(a)	Cement		
	For works with estimated cost put to tender not more than Rs.25 lakh	:	3% plus / minus
	For works with estimated cost put to tender more than Rs.25 lakh	:	2% plus / minus
(b)	Bitumen for all works	:	2.5% plus only & nil on minus Side
(c)	Steel Reinforcement and structural steel sections for each diameter, section and category	:	2% plus/minus
(d)	All other materials	:	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of Item	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond Permissible Variation	**Less use beyond the permissible variation (Excluding GST)**
1.	Cement	Not applicable	**Rs.****/- per MT**
2.	Steel Reinforcement	Not applicable	**Rs.****/- per MT**

Assistant Engineer(C),
Central PWD, Rajamahendravaram.

ANNEXURE -I

On non-judicial stamp paper of minimum Rs.100/-

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

FORM OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT / PERFORMANCE GUARANTEE/SECURTY DEPOSIT/MOBILIZATION ADVANCE

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

OR**

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

2. We,……..(indicate the name of bank)…….(hereinafter referred to as "the Bank"), hereby undertake to pay to the Government an amount not exceeding Rs. ……(Rupees……only) in demand by the Government within 10 days of the demand.
3. 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 to or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs…….(Rupees…….only)
4. We,……..(indicate the name of the Bank)……., further undertake to pay the Government any money so demanded notwithstanding any dispute or 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 a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

5. We,…….(indicate the name of the Bank)……., further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms & conditions of the said agreement or to extended time of performance by the said contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms & conditions relating to the said agreement and we shall not be relived from our liability by reasons of any such variation or extension being granted to the said Contractor or for any forbearance , act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. We, ……. (indicate the name of the Bank) ……., further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We, ……. (indicate the name of the Bank) ……., undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to ……. Unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. ……(Rupees …… Only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date……

Witnesses :

1. Signature …….. Authorized Signatory
   Name and Address

   Name

   Designation

   Staff Code No.

   Bank Seal
2. Signature ……
   Name and Address

CONTR. AE(C) / RMV

* Date to be worked out on the basis of validity period of 120 days where only Financial Bids are invited and 120 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.

Annexure-II

Sample letter for Acceptance of tender

By REGISTERED POST

No. Dated,

To

(Name and Address of the contractor)

Subject: (Name of work as appearing in the tender for the work).

Dear Sir(s)

Your tender for the work mentioned above has been accepted on behalf of the President of India at your tendered / negotiated tender amount of Rs…… (Rupees……..) which is ……..% below / above the estimated cost of Rs…….. (Rupees……..)

1. You are requested to submit the performance guarantee of Rs. …… (Rupees…….) within 5 days of issue of this letter. The Performance Guarantee shall be in any of the prescribed form as provided in Clause – I of the General Condition of Contracts for CPWD Works and shall be valid upto ……

   On receipt of prescribed performance guarantee necessary letter to commence the work shall be issued and site of work shall be handed over to you thereafter.

2. Please note that the time allowed for carrying out the work as entered in the tender 60 days, will be reckoned from 10 days from the date of issue of this letter.

Yours faithfully,

Assistant Engineer(C),
CPWD, Rajamahendravaram
For & on behalf of President of India

CONTR. AE(C) / RMV

Annexure-III

Sample letter for Commencement of works

By Registered Post

No. Date:

To

(Name and Address of the contractor)

Subject: (Name of work as appearing in the tender for the work).

Ref: 1. Performance guarantee submitted by you vide your letter No ……. Dated …… for above work.

2. This office letter of intent / acceptance of tender No…….dt……

Dear Sir(s)

1. In continuation to the letters referred above, you are requested to attend this office to complete formal agreement within 15 days from stipulated date of start.

2. You are requested to contact the Assistant Engineer …… (complete address) for taking possession of site and starting the work on or before 10 days from the date of letter of acceptance of tender.

Yours faithfully,

Assistant Engineer (C),
CPWD, Rajamahendravaram
For & on behalf of President of India

CONTR. AE(C) / RMV

ANNEXURE- IV

GUARANTEE FOR REMOVAL OF

DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS.

The 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 (here in after called the contract), dated_____and made between the GUARANTOR of the ONE part and the GOVERNMENT of the other part, whereby the contractor, interalia, undertook to render the buildings and structures in the said contract recited completely water and leak- proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof FOR **Ten years** to be reckoned from the date after the maintenance 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 **Ten years** to be reckoned from the date after the maintenance period prescribed in the contract:

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

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

(IV) 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.

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

During this period of guarantee the Guarantor shall make good all the 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 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 execute the waterproofing 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 WITNESS WHERE-OF these presents have been executed by the obligor_____ and by_____ and for and on behalf of the PRESIDENT OF INDIA on the 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 presence of:

1.

2.

CONTR. AE(C) / RMV

BRIEF PARTICULARS OF WORK

Miscellaneous Civil Repair Works & water proofing treatment on Terraces:

1. Provision of Waterproofing at Terrace with applying Brush bond RFX of M/S Fosroc chemicals or equivalent.
2. Execution of other miscellaneous related works as required.

CONTR. AE(C) / RMV

Annexure-V

DECLARATION ABOUT SITE INSPECTION

To,

The Assistant Engineer (C),
CPWD, Rajamahendravaram.

Name of Work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

NIT No. : 41/EE/(VJA)/2026-27

Dear Sir,

It is hereby declared that as per CPWD–6 FOR e-BIDDING, I/ We the bidder(s) inspected and examined the subject site and its surrounding and satisfy myself / ourselves as to the nature of the ground and sub-soil (so far as is practicable), the forms and nature of the site. Ourselves before submitting the bid, the accommodation which may require and all necessary information as to risks, contingencies and other circumstances which may influence or affect our bid have been obtained. I/We the bidder shall have full knowledge of the site and no extra charge consequent upon any misunderstanding or otherwise shall be claimed in later date.

I /We bidder shall be responsible for arranging and maintaining at 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 me/us implies that I / We have read this notice and all other contract documents and has / have made myself /ourselves aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.

Yours faithfully

(Duly authorized signatory of the bidder)

GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

Mines & Minerals - Amendment to the Rule 10 of the Andhra Pradesh Minor Mineral Concession Rules, 1966 Orders - issued.

INDUSTRIES AND COMMERCE (M.II) DEPARTMENT

G.O.MS.No. 11 **Dated: 11-02-2020**

Read the following:

1. G.O.Ms.No.198, Industries & Commerce (M.I) Dept., dt:13.08.2009.
2. GSR No.423 (E), dt: l0.02.2015 from the Ministry of Mines, Govt. of India, New Delhi.
3. G.O.Ms.No.100, Industries & Commerce (M.II) Dept., dt:31.10.2015.
4. G.O.Ms.No.105, Industries & Commerce (M.II) Dept., dt:13.11.2015.
5. G.O.Ms.No.38, Industries & Commerce (M.II) Dept., dt:17.03.2016.
6. G.O.Ms.No.156, Industries & Commerce (M.II) Dept., dt:03.11.2016.
7. G.O.Ms.No.131, Industries & Commerce (M.II) Dept., dt:04.10.2017.
8. G.O.Ms.No.18, Industries & Commerce (M.II) Dept., dt:29.01.2018.
9. G.O.Ms.No.28, Industries & Commerce (M.II) Dept., dt:17.04.2018.
10. G.O.Ms.No.49, Industries & Commerce (M.II) Dept., dt:21.02.2019.
11. Proposal from the Director of Mines & Geology, vide e-file No: INC04-17021(34)/1/2019-PLANNING SEC-DMG received by the Government on dt. 11.12.2019

***

O R D E R:

After careful examination of the proposal received from the Director of Mines & Geology, Andhra Pradesh, Ibrahimpatnam in the letter 11th read above, the Government hereby decided to amend the Rule 10 of Andhra Pradesh Minor Mineral Concession Rules, 1966 for enhancing the existing Seigniorage fee and Dead Rent in respect of Minor Minerals.

2. The following notification will be published in the Extra-ordinary issue of the Andhra Pradesh Gazette, dated: 11.02.2020.

NOTIFICATION

In exercise of the powers conferred by sub-section (1) of section 15 of the Mines & Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), the Governor of Andhra Pradesh hereby makes the following amendments to the Andhra Pradesh Minor Mineral Concession Rules, 1966 issued in G.O.Ms.No.1172, Industries and Commerce Department, dated. 04.09.1967 and subsequent amended from. time to time.

AMENDMENT

In the said rules, under Rule 10 for Schedules I and II, the following shall be substituted, namely

"SCHEDULE-I"

RATES OF SEIGNIORAGE FEE

Sl. No.	Name of the Minor Mineral	Units	Rate of Seignories Fee (in Rupees)
1.	Agate	M.T.	Rs. 145 (Rupees One Hundred and Forty Five)
2.	Ball Clay	M.T.	Rs. 75 (Rupees Seventy Five)
3.	**Barytes**		
	i. Grey Colour – A Grade	M.T.	Rs. 480 (Rupees Four Hundred and Eighty)
	ii. Grey Colour – B Grade	M.T.	Rs. 355 (Rupees Three Hundred and Fifty Five)
	iii. Grey Colour – C + D + Waste Grade	M.T.	Rs.220 (Rupees Two Hundred and Twenty)
	iv. White Colour	M.T.	Rs. 1100 (Rupees One Thousand and One Hundred)
	v. Of colour other than Grey	M.T.	Rs. 500 (Rupees Five Hundred)
4.	Building Stone	M^3/M.T.	Rs. 90/60 (Rupees Ninety / Sixty)
5.	Calcareous Sand	M.T.	Rs. 90 (Rupees Ninety)
6.	Calcite	M.T.	Rs. 90 (Rupees Ninety)
7.	Chalcedony Pebbles	M^3/M.T.	Rs. 90/60 (Rupees Ninety / Sixty)
8.	Chalk	M.T.	Rs. 95(Rupees Ninety Five)
9.	China Clay	M.T.	Rs. 60 (Rupees Sixty)
10.	Clay (Others)	M.T.	Rs. 60 (Rupees Sixty)
11.	Corundum	M.T.	Rs. 120 (Rupees One Hundred and Twenty)
12.	Diaspore	M.T.	Rs. 415 (Rupees Four Hundred and Fifteen
13.	Dimensional Stone used for Kerbs & Cubes	M.T.	Rs. 135 (Rupees One Hundred and Thirty Five)
14.	Dolomite	M.T.	Rs. 100 (Rupees One Hundred
15.	Dunite or Pyroxinite	M.T.	Rs. 60 (Rupees Sixty)
16.	Feldspar	M.T.	Rs. 100 (Rupees One Hundred)
17.	Felsite	M.T.	Rs. 130 (Rupees One Hundred and Thirty)
18.	Fireclay	M.T.	Rs. 60 (Rupees Sixty)
19.	Fullers Earth / Bentonite	M.T.	Rs. 180 (Rupees One Hundred and Eighty)
20.	Fuschite Quartzite	M.T.	Rs. 90 (Rupees Ninety)

21.	**Granite useful for cutting and polishing purpose**					
S. No.	**Item**	**Unit**	**Super Gang Saw equal and above 300cm x 180cm size**	**Mini Gang Saw equal and above 270cm x 150cm size**	**270cm x 150cm & Below size**	**Below 75cm size**
i.	Black Galaxy Granite Variety	M^3/ MT	Rs.4600 / Rs.1415 (Rs. Four Thousand Six Hundred / Rs. One Thousand Four Hundred Fifteen	Rs.3680 / Rs.1130 (Rs. Three Thousand Six Hundred Eighty / Rs. One Thousand One Hundred Thirty)	Rs.3450 / Rs.1060 (Rs. Three Thousand Four Hundred Fifty / Rs. One Thousand Sixty)	Rs.1550 / Rs.480 (Rs. One Thousand Five Hundred Fifty / Rs. Four Hundred Eighty)
ii.	Black Granite other than Galaxy variety	M^3/ MT	Rs.3450 / Rs.1150 (Rs. Three Thousand Four Hundred Fifty / Rs. One Thousand One Hundred Fifty)	Rs.2875 / Rs.960 (Rs. Two Thousand Eight Hundred Seventy-Five / Rs. Nine Hundred Sixty)	Rs.2700 / Rs.900 (Rs. Two Thousand Seven Hundred / Rs. Nine Hundred)	Rs. 1150 / Rs.385 (Rs. One Thousand One Hundred Fifty / Rs. Three Hundred Eighty-Five)
iii.	Colour Granite Srikakulam Blue, Moon White River white of Visakhapatnam Dist., Leptinites of Coastal Dists., Black pearl of Prakasam and Guntur Dists.	M^3/ MT	Rs. 3450 / Rs.1255 (Rs. Three Thousand Four Fifty	Rs.2875 / Rs.1045 (Rs. Two Thousand Eight Hundred	Rs. 2700 / Rs. 980 (Rs. Two Thousand Seven	Rs. 1150 / Rs.420 (Rs. One Thousand One

			Rs. One Thousand Two Hundred Fifty-Five)	Seventy-Five / Rs. One Thousand Forty-Five)	Hundred / Rs. Nine Hundred and Eighty)	Hundred Fifty / Rs. Four Hundred Twenty)
iv.	Colour Granite of other varieties	M^3/ MT	Rs.2700 / Rs.985 (Rs. Two Thousand Seven Hundred / Rs. Nine Hundred Eighty-Five)	Rs.2470 / Rs.900 (Rs. Two Thousand Four Hundred Seventy / Rs. Nine Hundred)	Rs.2300 / Rs.835 (Rs. Two Thousand Three Hundred / Rs. Eight Hundred and Thirty-Five)	Rs.1150 / Rs.420 (Rs. One Thousand One Hundred Fifty / Rs. Four Hundred Twenty)
v.	Kuppam Grey Granite available in Santhipuram & Ramakuppam mandals of Chittoor District	M^3/ MT	Rs.1925 / Rs.700 (Rs. One Thousand Nine Hundred Twenty-Five / Rs. Seven Hundred)	Rs.1650/ Rs.600 (Rs. One Thousand Six Hundred Fifty / Rs. Six Hundred	Rs.1375/ Rs.500 (Rs. One Thousand and Three Hundred and Seventy-Five / Rs. Five Hundred)	Rs.1100 / Rs.400 (Rs. One Thousand One Hundred / Rs. Four Hundred)
vi.	Chittoor Colour Granite (Other than Silver-waves, Madanapalli white and Iscon white)	M^3/ MT	Rs.1925 / Rs.700 (Rs. One Thousand Nine Hundred Twenty-Five / Rs. Seven Hundred)	Rs.1650 / Rs.600 (Rs. One Thousand Six Hundred Fifty / Rs. Six Hundred	Rs.1375 / Rs.500 (Rs. One Thousand and Three Hundred and Seventy-Five / Rs. Five Hundred)	Rs.1100 / Rs.400 (Rs. One Thousand One Hundred / Rs. Four Hundred)

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seignorage Fee (In Rupees)
22.	Gypsum	M.T.	Rs. 150 (Rupees One Hundred and Fifty)
23.	Jasper	M.T.	Rs. 145 (Rupees One Hundred and Forty-Five)
24.	Kaolin	M.T.	Rs. 60 (Rupees Sixty)
25.	**Laterite**		
	i. Dispatched for use in Alumina & Aluminium metal extraction	M.T.	Rs. 200 (Rupees Two Hundred)
	ii. For use other than Alumina and Aluminium metal extraction and export	M.T.	Rs. 100 (Rupees One Hundred)
26.	Lime Kankar / Lime stone	M.T.	Rs. 90 (Rupees Ninety)
27.	Lime Shell	M.T.	Rs. 120 (Rupees One Hundred and Twenty)
28.	**Limestone Slabs:**		
	i. Color	Sq.Mt / M.T.	Rs. 10 (Rupees Ten) per Sq. Mt
	ii. White	Sq.Mt / M.T.	Rs.120 (Rupees One Hundred and Twenty) per MT whichever is higher
	iii. Black	Sq.Mt / M.T.	Rs. 6 (Rupees Six) per Sq. Mt or Rs. 110 (Rupees One Hundred and Ten) per MT whichever is higher.
29.	Manufactured Sand	M^3/M. T.	Rs. 90/60 (Rupees Ninety / Sixty)
30.	Marble	M^3/M. T.	Rs. 300/120 (Rupees Three Hundred / One Hundred and Twenty)
31.	**Mica**		
	i. Crude	M.T.	Rs.2000 (Rupees Two Thousand)
	ii. Scrap	M.T.	Rs. 750 (Rupees Seven Hundred and Fifty)
32.	Morrum / Gravel & Ordinary Earth	M^3/M. T.	Rs.45 / 30 (Rupees Forty-Five / Thirty)
33.	Mosaic Chips	M.T.	Rs. 90 (Rupees Ninety)
34.	Ochre	M.T.	Rs. 60 (Rupees Sixty)
35.	Ordinary Clay, Silt and Brick Earth used in the Manufacture of Bricks including Mangalore Tiles		Rs. 8000 (Rupees Eight Thousand Per Kiln per Annum for Bricks and Tiles)

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seignorage Fee (In Rupees)
36.	Ordinary Sand	M^3/M. T.	Rs. 100 / Rs. 66 (Rupees One Hundred / Rs. Sixty-Six)
37.	Pyrophillite	M.T.	Rs. 200 (Rupees Two Hundred)
38.	Quartz	M.T.	Rs. 90 (Rupees Ninety)
39.	Quartzite	M.T.	Rs. 90 (Rupees Ninety)
40.	Rehmati	M^3/M. T.	Rs. 35 / 25 (Rupees Thirty-Five / Twenty-Five)
41.	Road Metal / Ballast	M^3/M. T.	Rs. 90 / 60 (Rupees Ninety / Sixty)
42.	Rough Stone / Boulders	M^3/M. T.	Rs. 90 / 60 (Rupees Ninety / Sixty)
43.	Sand (Others)	M.T.	Rs. 100 (Rupees One Hundred)
44.	Shale	M.T.	Rs. 180 (Rupees One Hundred and Eighty)
45.	Shingle	M^3/M. T.	Rs. 90 / 60 (Rupees Ninety / Sixty)
46.	Silica Sand	M.T.	Rs. 100 (Rupees One Hundred)
47.	Slate	M.T.	Rs. 175 (Rupees One Hundred and Seventy-Five)
48.	**Steatite or Talc or Soapstone**		
	i. Filler Grade	M.T.	Rs. 100 (Rupees One Hundred)
	ii. Other Grade	M.T.	Rs. 550 (Rupees Five Hundred and Fifty)

SCHEDULE-II

RATES OF DEAD RENT

Sl. No.	Name of the Minor Mineral	Rate of Dead Rent per hectare per annum (In Rupees)
1	Black Galaxy Granite and Black Granite	Rs. 1,30,000/- (Rs. One Lakh Thirty thousand)
2	All Colour Granite varieties	Rs. 1,30,000/- (Rs. One Lakh Thirty Thousand)
3	Limestone other than classified as major minerals used for lime burning for Building construction purpose, marble, boulders, building stone including stone used for Road Metal, Ballast, Manufactured sand, concrete & other construction purpose, Shale, Slate & phyllites, Mosaic Chips, Fullers Earth/ Bentonite &Dimensional Stone Used for Cubes and kerbs	Rs. 65,000/- (Rs. Sixty-Five Thousand)
4	Gravel, Morrum, Ordinary Earth, shingle, Limestone Slabs used for flooring purpose Limekankar, Chalcedonypebbles used in the building purpose Limeshell for burning used for building purpose and Rehmati.	Rs. 52,000/- (Rs. Fifty Two Thousand)
5	Barytes and Laterite	Rs. 26,000/- (Rs. Twenty Six Thousand)
6	Agate, Corundum, Diaspore and fluorite	Rs. 20,000/- (Rs. Twenty Thousand)
7	Mica	Rs. 15,000/- (Rs. Fifteen Thousand)
8	All minor minerals which are not covered under Serial number 1 to 7 above.	Rs. 20,000/- (Rs. Twenty Thousand)

3. This order shall come in to force with immediate effect.

4. This order issues with the concurrence of Finance Department vide their U.O No. FMUOASD(IC)/. 2019-FMU-IIEIC, dt. 09.01.2020 (computer No 1063684)

[BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH]

K. RAMGOPAL
PRINCIPAL SECRETARY TO GOVERNMENT (MINES)

CONTR. AE(C) / RMV

To

1. The Commissioner of Printing , Stationary & Store purchase (Ptg. Wing), Vijayawada. (He is requested to publish the above notification in the Extra-ordinary issue of Andhra Pradesh, and arrange to send 1000 copies of the same to Govt. Ind. & Com. (M.II) Department).
2. The Director of Mines & Geology, Andhra Pradesh, Ibrahimpatnam.
3. The Chief Executive Officer, SERP, Vijayawada.
4. All the Joint Director/ Deputy Director / Asst. Director of Mines & Geology through the Director of Mines & Geology, Ibrahimpatnam.

Copy to:

1. The Secretary to Govt. Ministry of Mines, Govt. of India, Shastry Bhawan, New Delhi.
2. The Law Department / The Finance Department.
3. The P.S to Minister for Mines & Geology. / The PS to Prl. Secretary to Govt, (Mines).
4. SF/SC (e-file NO. INC04-17021(34)/1/2019-PLANING SEC-DMG, Comp. No. 1052464).

Note:

Rates of Seigniorage fee mentioned above in Schedule I & II is for guidance only and Royalty / Seigniorage fee, DMF, MERIT etc., shall be deducted from the running / final bills of Contractor as per the updated Seigniorage fee intimated by the industries and commerce (M.I) department, Government of Andhra Pradesh, from time to time and nothing extra shall be payable in this regard and no claim in this regard shall be entertained.

CONTR. AE(C) / RMV

SPECIAL CONDITIONS AND PARTICULAR SPECIFICATIONS FOR CIVIL WORK

SPECIAL CONDITIONS

1) Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol. I & II" with up-to-date correction slips, additional / Particular Specifications, Architectural / structural drawings and as per instructions of Engineer-in-Charge.

2) Unless otherwise specified in the schedule of quantities, particular specifications or CPWD specifications (subject to the order or preference) the rates tendered by the tenderer shall be all inclusive and nothing extra over and above the schedule of quantity shall be payable on this account.

3) Any reference made to any Indian Standard Specifications, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. **The Contractor shall keep at his own cost all such publications including relevant Indian Standard Codes applicable to the work at site**.

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, the constraints of space for stacking material / machinery, labour etc., 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 submission of their bids. The site is available for work. The contractor shall carry out 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 and proceed further ensuring full structural continuity and integrated and monolithic construction. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge.

5) The Contractor shall, if required by him, before submission of the bid, inspect the preliminary drawings in the Office of the **Executive Engineer, CPWD, Vijayawada**. 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 bid 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 bid document is different or in-correct otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the bid document. 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.

6) 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 from 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 respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge. Nothing extra shall be payable on this account.

7) **The contractor shall give to the local body, 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 fees, taxes and charges which may be leviable on account of these operations in executing the contract. Barricading for additional infrastructure area will be provided by the Department for the whole area. But if any Specific barricading required for Hostel Building site for safeguarding his own resources, agency has to make Barricading around the hostel site at his own cost.

8) The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident to labours/ contractual staff the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.

9) The work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol.I & II with upto date Correction clips, additional/ Particular Specifications, Architectural/ Structural drawings and as per instructions of Engineer-in charge. Any additional item of the work, if taken up subsequently, shall also confirm to the relevant CPWD Specifications as mentioned above. Working (both Architectural and Structural) drawings will be released progressively to the contractor commensurate to the construction schedule approved by Engineer-in-charge.

10) The 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.

11) In case of any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed.

i. Description of items as given in Schedule of quantities
ii. Particular specifications

iii. Special conditions
iv. Tender drawings attached
v. CPWD Specifications including correction slips issued upto the last date of uploading/ submission of tender.
vi. General Conditions of Contract 2023 for construction works including correction slips issued upto the last date of uploading/submission of tender.
vii. Indian Standards Specifications of B.I.S.
viii. ASTM, BS, or other foreign origin codes mentioned in tender document.
ix. Manufacturer's specifications and as decided by the Engineer-in-Charge.
x. Sound Engineering practices or well established local construction practices.
xi. "In the event of any variation / discrepancy in the drawings, specifications and tender documents etc. the decision of the Engineer in charge shall be final binding, and conclusive on the contractor and in the case the contractor have any doubt and the same should be got clarified immediately from the Engineer in charge and no claim of the contractor shall be entertained thereafter. **Moreover, the agency is not allowed to take benefit out of any clerical / grammatical mistake in the standard clauses / Schedule of Quantities / Specifications etc. being used in the agreement**".

12. The works to be governed by this contract shall cover delivery and transportation upto destination, safe custody at site, insurance, erection, testing and commissioning of the entire work.

12.1 The works to be under taken by the contractor shall inter alia include the following:
(i) Preparation of detailed SHOP drawings, AS BUILT architectural drawings and Plumbing, Electrical and Mechanical drawings for the building based on Approved architectural drawings by the Competent Authority.
(ii) Getting the detailed, AS BUILT architectural drawings and SHOP drawings and Plumbing, Electrical and Mechanical drawings for the building approved by Competent Authority.
(iii) Obtaining of all Statutory permissions from local bodies like GHMC, Fire Department, Airport Authority and other local bodies as applicable wherever required.
(iv) Pre – commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
(v) Warranty obligation for the equipment and / or fittings / fixtures supplied by the contractor.

12.2 Contractor shall provide all the shop drawings or layout drawings for all the coordinated services before starting any work or placing any order for any of the services etc. These shop drawings / layout drawings shall be got approved from Engineer – in – charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer – in – Charge prior to delivery of material at site.

12.3 All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the CPWD specifications and design conditions before covering and their measurements shall be recorded in computerized measurements book after getting duly

test checked, which shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.

13. The work shall be carried out in accordance with the approved Architectural, structural drawings & service drawings. Before commencement of any item of work the contractor shall correlate all the relevant structural drawings, 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.

14. The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by Engineer- in-charge.

15. Unless otherwise provided in the Schedule of quantities, 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.

16. The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at suitable place. No stacking of materials or 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.

17. 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.
Wherever the BOQ item stipulates design, the contractor shall have to supply designs and structural drawings which shall have to be vetted by IITs/ NITs. /Government Engineering colleges/ CBRI /other Central or State Govt. Institutes as approved by SDG/ADG, and all costs towards the same, including charges for vetting shall be deemed to have been included in the quoted rates.

    Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the execution of work and nothing extra shall be payable or extra cement considered in consumption on this account.

18. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing, transportation etc. shall be borne by the contractor.

19. Work shall normally be done in a single shift/day. How ever if the work is required to be executed in more than one shift in a day for meeting the time lines, the Contractor with prior approval of the Engineer-in-charge, shall have to make necessary arrangements for the same and all costs towards the same shall be deemed to have been included in the quoted rates.

20. Materials used on work without prior inspection and testing (where testing is necessary) and without approval of the Engineer-in-Charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-Charge shall have full powers to require the removal of any or all of the materials brought to site by contractor which are not in accordance with the contract specifications or do not conform, in character or quality to the samples approved by the Engineer-in-Charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed at the risk and cost of the contractor.

21. Before taking up the work, the contractor shall also provide integrated drawings for various civil and electrical services showing details of lay out plan including sectional elevations. Contractor shall plan and mobilize his resources as per the integrated drawings and as per the site conditions to facilitate convenient execution, installation as well as maintenance of these services. Nothing extra shall be payable on this account.

22. **PREVENTION OF NUISANCE AND POLUTION 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 during construction 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.

23. 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 nearby occupants/users of building(s), if any.

24. **SECURITY AND TRAFFIC ARRANGEMENTS**

In the event of any restrictions being imposed by the Security agency of Client Department / CPWD/ Vijayawada Traffic or any other local 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 him on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required.

For the safety of all labour directly or indirectly employed in the work the contractors shall, in addition to the provision of CPWD safety code and directions of the Engineer-in-Charge, make

all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below & nothing extra shall be paid on this account.

i.	IS 3696 Part I	Safety Code for scaffolds and ladders.
ii.	IS 3696 Part II	Safety Code for scaffolds and ladders Part II ladders.
iii.	IS 764	Safety Code for excavation work.
iv.	IS 4138	Safety Code for working in compressed air.
v.	IS 7293	Safety Code for working with construction machinery.
vi.	IS 7969	Safety Code for storage and handling of building materials.
vii.	IS 4130	Safety code for demolition of buildings.

25. The contractor is required to make his own arrangements to provide huts for labourers as is acceptable to local bodies /client and nothing extra shall be paid on this account. He shall make his own arrangements for stores, field office etc. Before bidding, he shall visit the site and assess the manner in which he 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.

26. 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.

27. 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.
28. 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.
29. The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including all equipment's, services provided by him against pilferage and breakage during the period of Installations and thereafter till the building is physically handed over to **the Client Department.** No extra payment shall be made on this account and no claim shall be admissible on this account.
30. The contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / Telangana State Govt. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The contractor shall also adhere to all traffic restrictions notified by the local authorities. 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 water charges (for municipal water connection as well

as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges 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. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.

31. 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 except otherwise provided in the items of Schedule of Quantities.
32. The contractor shall make all necessary arrangements for protecting works already executed from rains, fog or likewise extreme weather conditions 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.
33. The contractor will take reasonable precautions to prevent his workman and employees from removing and damaging any flora (plant/vegetation) from the project area.
34. **SETTING OUT**

(i) The contractor shall carry out survey of the work area, at his own cost, setting out the layout of building in consultation with the Engineer–in-charge & proceed further. Any discrepancy between in the drawings and actual layout at site shall be immediately 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 centre 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) In order to set the alignment of buildings / foundations and to mark the same on the ground, the agency is to adopt "total station" surveying method. The agency is to engage a well versed and well experienced surveyor in "total station" survey. Nothing extra for this total station survey is payable.

(iv) If at any time, any error appears due to grades, lines, levels and benchmarks during the progress of the work, the contractor shall, at his own expense rectify such error, if so required, to the satisfaction of the Engineer–in-charge. Nothing extra shall be payable on this account.

(v) Though the site levels are indicated in the drawings the Contractor shall ascertain and confirm the site levels with respect to benchmark from the concerned authorities. The Contractor shall protect and maintain temporary/ permanent benchmarks at the site of work throughout the execution of work. These benchmarks shall be got checked by the Engineer-in-Charge or his authorized representatives. The work at different stages shall be checked with reference to bench marks maintained for the said purpose. Nothing extra shall be payable on this account.

(vi) The approval by the Engineer-in-charge, of the setting out by the contractor, shall not relieve the Contractor of any of his responsibilities and obligation to rectify the errors/ defects, if any, which may be found at any stage during the progress of the work or after the completion of the work.

(vii) 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.

(viii) The amount quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, centre lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, 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.

35. **TOOLS AND PLANTS**

The contractor should deploy 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.

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

36. **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. Single scaffolding system is strictly prohibited and shall invite necessary action. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. Nothing extra shall be payable on this account. It shall be ensured that no damage is caused to any structure due to the scaffolding.

37. The contractor shall do proper sequencing of the various activities by suitably staggering the activities so as to achieve early completion. The contractor is to deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period as 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 condition 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 intended for use in the construction of this work and they shall not be shifted/ removed from site without the permission of the Engineer-in-charge.

38. **ROYALTY**

Royalty/Seigniorage Fee at the prevalent rates shall be deducted from the Bills payable to the Contractor, as per G.O. No. MS. No. 14 dated 08.07.2025 issued by Industries and Commerce (M.I) Department, Government of Telangana state (copy enclosed along with tender document) and this order issued with the concurrence of Finance (EBS.VII) department vide their U.No.1318/88/A2/EBS.VII/2025, dated 26.06.2025, or as per consequent/latest G.O. if any,

issued by the Government of Telangana State, on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, river sand/ Manufactured sand, gravels and bajri etc. collected by him for the execution of the work. The rates quoted by the contractor shall be inclusive of such Royalty and taxes etc. and nothing extra shall be payable on this account. Signior age chares for materials not mentioned in the G.O. No. 14, dated 08.07.2025, refer old G.O. No.18, dated 31.03.2022.

39. **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 Act. The contractor will take reasonable precaution to prevent his workmen 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.

40. **RESPONSIBILITY OF CONTRACTOR**

(i) He shall protect and indemnify the **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 fee payable to statutory authorities for obtaining the various permanent service connections and Building Use Certificate for the building shall be borne by the **Client.**

(iii) The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the **CPWD** from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department **CPWD** against all claims in respect of patent rights, royalties, design, trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

41. **CO-OPERATION WITH OTHER CONTRACTORS/SPECIALIZED AGENCIES/ SUB- CONTRACTORS.**

i) The contractor shall take all precautions to adhere by the environmental related restrictions imposed by any statutory body having jurisdiction over work site 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. 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 adjoining buildings. No claims whatsoever 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 herein, 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 sub-contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify the CPWD against any claim(s) arising out of any 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 sub-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 scheduled completion.

Resolve the disputes with other contractors/ sub-contractors amicably and the Engineer-in-charge shall not be made an intermediary or an arbitrator.

(iii) The work should be planned in a systematic manner so as to ensure proper coordination of various disciplines viz. water supply, drainage, rain water harvesting, electrical, fire fighting, information technology, communication & electronics and any other services.

(iv) Other Associated agencies may also simultaneously execute and install the works of sub-station / generating sets, air-conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

(v) The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-In-Charge and shall as far as possible arrange his work and shall place and dispose off 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 in a proper coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

42. **SUPERVISION OF WORK**

The contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart 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 work site 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 as mentioned in the bid document to complete the work with quality and within stipulated time limit.

Principle Technical representative of the Contractor having minimum years experience in similar nature of work as mentioned in the clause 32 of the General Conditions of the Contract, shall always be available at the site during the actual execution of the work. The recovery rate as mentioned in the clause 32 shall be affected from the Contractor in the event of not fulfilling this provision.

43. **SPECIALIZED AGENCIES**

Any specialized component of work in the project, for which expertise is lacking with the main contractor the same, shall be carried out in association with a specialized agency to be approved by the Engineer-in-charge.

(i)The composite bid comprises of two main components; viz, Civil work and Electrical work. The list of specialized items for Electrical work which is to be got executed through specialized agencies only. The specialized agency should have successfully completed at least one work of similar nature and of appropriate magnitude commensurate to this work. Decision of Engineer In Charge shall be final and binding in this regard.

The contractor shall submit the following details of the specialized agency before execution of work for approval of Engineer In Charge:

List of similar works carried out by the agency during the last Seven years along with the name of work, name and address of clients, year of execution, value of work done and brief specification of the work. The credentials for such completed works shall be obtained from the Project Manager/Executive Engineer concerned along with contact address.

The main contractor shall submit the credential of specialized agency well in advance as per the direction of Engineer-in-charge. After verification of the same, written approval will be conveyed to main contractor in this regard. The quantum of credentials will be broadly in line with CPWD guidelines. 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. However before making any such change he has to enter into similar agreement as with previous agency & submit the same to Engineer – in – Charge for approval. This shall however be without any change in the accepted rates of the contract agreement and without any cost implications to the Department.

(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 arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub- contractor(s). No claim of hindrance in the work shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies or any dispute amongst them.

44. **RATES**

(i) The amount quoted by the Contractor are deemed to be inclusive of site clearance, setting outwork, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers, working during monsoon or odd season, working beyond normal hours, working at all depths heights, lead, lift, levels and location and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.

(ii) The amount quoted by the tenderer is inclusive of all taxes and levies including GST and nothing extra shall be payable.

(iii) Ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc .required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates from local bodies etc., protection works, and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in **amount** quoted by the Contractor. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc.

For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them. All material shall only be brought at site as per program finalized with the Engineer-in- Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

45. **SAFETY MEASURES**

i) ***WARNING/ CAUTION BOARDS***: All temporary warning / caution boards / glow signage display such as “Construction Work in Progress”, “Keep Away”, “No Parking”, Diversions etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer - in - Charge. Nothing extra shall be payable on this account.

ii) *SIGN BOARDS:* The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, Client/Owner, Engineer-in-charges, Structural Consultants, Department etc. besides providing space for names of other Contractors, Sub-Contractors and specialized

agencies within 15 days from issue of award letter. Nothing extra shall be payable on this account. In case of non compliance/delay in compliance in this, a penalty @ Rs. 500/- per day will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

iii) Necessary protective and safety equipment's such as helmet, safety shoes, gloves etc shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.

iv) No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer-in- Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

v) The issue of construction safety & standards has gained utmost importance in recent times. This subject is to be dealt with in an integrated manner with an approach to developing and establishing a safety culture at work sites. Broadly, its components are:

a) Creating awareness
b) Education
c) Tranining
d) Implementation
e) Enforcement measures.

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

vi) The contractor shall issue **Photo Identity Cards** with unique numbers containing salient information of workers for the labour & his staff.

vii) The contractor shall monitor and achieve the objectives of construction safety continuously, progressively and through affirmative action, and shall oversee implementation of safety program over the entire construction period.

46. **QUALITY ASSURANCE**

i) Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work. For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them. All material shall only be brought at site as per program finalized with the Engineer-in- Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

ii) 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. 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.

iii) In addition to the supervision of work, CPWD Engineers/Client department officials shall also be carrying out regular and periodic inspection of the ongoing activities in the work and

deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by CPWD engineers to the contractor. Upon receipt of instructions from Engineer in Charge these are also to be made good by necessary improvement, rectification, replacement upto his complete satisfaction. Special attention shall be paid towards line and level of internal and external plastering, exposed smooth surface of RCC members by providing fresh shuttering plates, rubberized linings to all the shuttering joints, accurate joinery work in wooden doors and windows, thinnest joints in stone/ tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by impounding layer of plaster of Paris, water tight pipe linings, absence of hollow vertical joints in brick masonry, proper compaction of filled up earth etc. to achieve an Institution of International standards and up keeping of quality assurance shall be of paramount importance, as such.

iv) The Contractor shall submit, within **15 days** after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer-in-Charge. All the materials to be used in the work, to make the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer-in- Charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer-in-Charge, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in-Charge.

v) The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of Engineer-in-Charge. The materials to be used in actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-Charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.

vi) 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. The Contractor shall submit PO's of the all the materials to CPWD, prior to bringing them to site. Any Material brought to site without submission of PO to CPWD shall be rejected. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per suggested list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.

vii) **<u>SPECIAL CONDITION FOR HARDWARE AND SANITARY WARES:</u>**

a) Engineer – in - charge will take a decision regarding model numbers of equivalent Door/Window hard ware/ Sanitary ware at the time of execution, in case the material, from the manufacturer whose model number is mentioned, is not available. However, in case, the

equivalent model so approved, is cheaper than the model already mentioned in item /. Approved makes list, the price adjustment will be made based on the difference in market rate. In case, the rate of subsequently approved model is more, no extra payment will be made on this account.

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

i) Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the site order book under the signature of the AE/AEE giving approximate quantity of such materials.
ii) As soon as the material is removed, a certificate to that effect may be recorded by the AE/AEE against the original entry, giving the date of removal, mode of removal i.e. whether by truck, carts or by manual labour. If removal is by truck, the registration number of the truck should be recorded.

viii) **SAMPLE OF MATERIALS**:

i) All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer – in – Charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer in charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per **List of Approved makes given in the tender document** for approval of Engineer in charge. For all other items, ISI Marked Materials and fittings shall be used with the approval of Engineer in charge. Wherever ISI marked material / fittings are not availed, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes for the approval of Engineer – in – Charge.

ii) The contractor shall procure and provide all the materials from the manufacturers /suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available . This is , however subject to documentary evidence produced by the contractor for non – availability of the brand specified and also subject to independent verification by the Engineer – in – charge. In exceptional cases, where such approval is required, the decision of Engineer – in – charge as regards equivalent make of the material shall be final and binding on the contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor o this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer – in – charge.

iii) To avoid delay, contractor should submit samples / as stated above well in advance so as to give timely orders for procurement. If any material, even though approved by Engineer – in – charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost. Samples including brand / quality of materials and fittings to be used in the work shall be got approved from the Engineer – in charge, well in advance of actual execution and shall be preserved till the completion of the work.

iv) BIS marked materials except otherwise specified shall also be subjected to quality test besides testing of other materials as per the specifications described for the item / material. Wherever BIS marked materials are brought to the site of work, the contractor shall, furnish

manufacturer's test certificate or test certificate from approved testing laboratory to establish that the material procured by the contractor for the incorporation in the work satisfies the provisions of specifications relevant to the material and / or the work done.

BIS marked items (except cement & steel for which separate provisions have been made) required on the work shall be got tested, for only important tests, which govern the quality of the product, as decided by the Engineer – in – charge. The frequency of such tests (except the mandatory test) shall be 5% of the frequency as specified in BIS. For mandatory test, frequency shall be as specified in the CPWD specificatopms.

v) For certain items, if frequency of tests is neither mentioned in the CPWD specifications nor BIS, then tests shall be carried out as per directions of Engineer – in – charge.

ix) The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contactor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge. All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.

x) The contractor has to establish field laboratory at site including all necessary equipment for field tests as given in Schedule 'F'. All the relevant and applicable standards and specifications shall be made available by the contractor at his cost in the field laboratory. The contractor shall designate one of his technical representatives as Quality Assurance Engineer, who shall be responsible for carrying out all mandatory field/laboratory tests. The contractor shall also provide adequate supporting staff at his cost for carrying out field tests, packaging and forwarding of samples for outside laboratory tests and for maintaining test records.

xi) **Lab Equipment**:

(i) 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. A site laboratory with minimum equipment as specified in NIT shall be established, made functional and maintained within 21 days from the award of the work without any extra cost to the department.

xii) **<u>FIELD LABORATORY</u>**:

The Contractor has to establish within 21 days from the award of work a field laboratory at site including all necessary equipment's and skilled manpower for the Field Tests as indicated in the tender document at his own cost to have proper quality control. Rs.1,000/- per day shall be recovered from the contractor for any delay beyond the specified period. If contractor fails to establish lab within additional period of 15 days, the Engineer – in – Charge shall initiate action as deemed fit under relevant clauses of the agreement.

xiii) The tests, as necessary and where no field laboratory facilities are available, shall be conducted in the laboratory approved by the Engineer–in- Charge. For materials for which field testing equipment is established at site, for those materials 90% of total tests shall be done at the laboratory established at site by contractor and remaining in the Central/State Govt.Institutes as approved by ADG/SDG. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.

xiv) **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 register

(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. ln case of any doubt, genuineness of the tax paid bills; it can be verified by the representative of the Engineer-inCharge or the Engineer-in-Charge, however, onus of genuineness of tax id bills rest with the contractor.

xv) **Maintenance of Register of Tests:-**

(i) All the registers of tests carried out a construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer – in – charge.

(ii) All samples of materials including Cement Concrete Cubes shall be taken jointly with Contractor by representative of the Engineer – in – charge. All the assistance shall be provided by the contractor. Cost of sample materials is to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site.

(iii) All the test in field lab setup at Construction Site shall be carried out by the Engineering Staff deployed by the contractor which shall be 100% witnessed by representative of the Engineer in charge.

(iv) All the entries in the registers will be made by the designated Engineering staff of the contractor and same should be regularly reviewed by Engineer in charge or his representative.

(v) Contractor shall be responsible for safe custody of all the test registers.

xvi) The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.

xvii) The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.

xviii) All expenditure to be incurred for all testing of samples e.g packaging, sealing, transportation, loading, unloading etc., including testing charages shall be borne by the Contractor.

In case of concrete and reinforced concrete work also the contractor shall be required to make arrangement for carrying out compression 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 upto the laboratory where the test is to be performed.

xix) All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.

xx) The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors is minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper co-ordination of various disciplines viz., building works, sanitary & water supply & electrical installations etc.

xxi) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should confirm to bylaws and municipal body / corporation where CPWD Specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost.

xxii) The contractor shall have to execute guarantee bonds in respect of water proofing works, Aluminium doors windows & ventilators work, Curtain/Structural Glazing works as per Performa enclosed.

xxiii) The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various electrical installations, fire pumps, wet riser / fire fighting equipment's, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

xxiv) Senior Officers of CPWD, Dignitaries from Central Ministry / Department, State Government and Client Department Authorities shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall therefore, keep updated the following requirements and detailing:-

(i) Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.
(ii) Entrance and area surroundings to be kept cleaned.
(iii) Display layout plan key plan, Building drawings including plans, elevations and sections.
(iv) Upto date displays of programme chart (Bar charts).
(v) Keep details of quantities executed, balance quantities, deviations, possible Extra item, Substituted item etc.
(vi) Keep plastic / cloth mounted one sets of building drawings.
(vii) Set of Helmets and safety shoes for safety.

47. **SUBMISSION AND DOCUMENTATION**

i) The contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc under various labour laws and other regulations applicable to the works, at his site office. He should also keep at site at least one set of latest version of BIS Codes and other relevant codes at site and produce the same if asked for by Engineer-In-charge. In case of non-compliance, these codes will be purchased from the market and actual cost of purchase will be recovered from the next RA Bill of the contractor.

ii) The contractor shall make available four (04) sets of completed drawings, "As Built Drawings" along with literatures, manuals, warranty certificates etc. of various installed fittings, fixtures and equipment for the completed projects. This shall be the prerequisite for payment of final bill.

iii) The Contractor shall make available three (03) sets of all As-Built drawings of internal and external services i.e. Water Supply, Sanitary line and Drainage lines. This shall be the prerequisite for payment of final bill. These drawings shall have the following information:
(a) Run off for all piping and their diameters including soil, waste pipes and vertical stacks.
(b) Ground and invert level of all drainage pipes together with locations of all manholes and connections, upto outfall.
(c) Run off for all water supply lines with diameters location of control valves, access panels etc.

iv) The contractor will submit computerized measurement sheet for the work carried out by him for making payment as per Clause – 6 of the CPWD General Conditions of Contract 2023 (with correction slips upto the last date of submission of tender). For casting of RCC members and other hidden items the corrected and duly test checked measurement sheets of reinforcement or that of other hidden items shall be deposited with Engineer in charge or his authorized representative, before casting of RCC or other hidden items. The delay in submission of corrected and duly checked measurement sheet may, therefore, delay casting of RCC or execution of hidden item for which no hindrance shall be recorded.

v) To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.

48. **PROJECT PROGRAM CHART:**

The Contractor shall prepare an integrated program chart within 15 **(Fifteen) days** of issue of acceptance 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 fulfilment of the program within the stipulated period and submit the same for approval of the Engineer-In-Charge within fifteen days of the award of the work. These shall be submitted by the contractor through electronic media besides forwarding hard

copies of the same. The integrated program chart so submitted should not have any discrepancy with the physical milestones attached in the contract agreement.

The program chart should include the following: -

a) Descriptive note explaining sequence of various activities.
b) Construction Program prepared on PRIMAVERA/ Software, which will indicate resources in financial terms, manpower and specialized equipment for every important stage.
c) Program for procurement of materials by the contractor.
d) Program for arranging and deployment of manpower both skilled and unskilled so as to achieve targeted progress.
e) Program of procurement of machinery/equipment having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor.
f) Program for achieving fortnightly micro milestones and periodic mile stones

i). In case of non-compliance/delay in compliance in this, a penalty @ Rs. 1000/-per week or part basis thereof will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

ii). If at any time, it appears to the Engineer-In-Charge that the actual progress of work does not conform to the approved program referred above, the contractor shall produce a revised program showing the modifications to the approved program by additional inputs to ensure completion of the work within the stipulated time.

If the revised programme chart is not submitted within 15 days from the date of communication by the Engineer-in-Charge, a recovery of ₹500 per day will be levied for the delay. This recovery shall continue until the agency submits the modified programme chart**.**

iii). The submission for approval by the Engineer-In-Charge of such program or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-In-Charge to take action against the contractor as per terms and conditions of the agreement.

Submission of Progress Reports:

Apart from the above integrated program chart, the contractor shall be required to submit fortnightly progress report of the work in a computerized form on **1st and 16th of every month**. The progress report shall contain the following, apart from whatever else may be required as specified above:

a) Construction schedule of the various components of the work through a bar chart for the next two fortnights (or as may be specified), showing the micro-milestone/milestones, targeted tasks (including material and labour requirement) and up to date progress. At least 10 digital photographs showing all the parts of construction site along with at least 5 minutes video of executions of different items in soft copy has to be submitted in every fortnightly progress report.

b) Progress chart of the various components of the work that are planned and achieved, for the fortnight as well as cumulative up to the fortnight under reckoning, with reason for deviations, if any in a tabular format.
c) Plant and machinery statement, indicating those deployed in the work

d) Man-power statement indicating:

i. Individually the names of all the staff deployed on the work, along with their designations.
ii. No. of skilled workers (trade wise) and total no. of unskilled workers deployed on the work and their location of deployment i.e. blocks.

e) Financial statement, indicating the broad details of all the running account payment received up to date, such as gross value of work done, advances taken, recoveries effected, amount withheld, net payments details of cheque payment received, extra/substituted/deviation items if any, etc.

vi) In case of non compliance / delay in compliance in submission of fortnightly progress reports not withstanding anything contained anywhere in this document or in CPWD-7/CPWD-8, a penalty @ Rs. 500/- (Non – refundable) per fortnightly report will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

Submission of Fortnightly Labour Reports:

The contractor shall be required to submit fortnightly labour report of the work in a computerized form by the **4th and 19th of every month**, to the Engineer-in-charge, a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:

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

In case of non compliance / delay in compliance in submission of fortnightly labour reports not withstanding anything contained anywhere in this document or in CPWD-7/CPWD-8, a penalty @ Rs. 500/- (Non - refundable) per fortnightly labour report will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

49. **TEMPORARY WATER/ ELECTRICITY/ TELEPHONE CONNECTION**

i) Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall abide by all the rules/ bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules/byelaws in this regard. Nothing extra shall be payable on this account.

ii) The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Department against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Nothing extra shall be payable on this account.

iii) 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.

50. **CLEANLINESS OF SITE**

(i) The contractor shall not stack building material/ melba/ muck on the land or road of the local development authority or on the land owned by 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 byelaws 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 / melba 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 counts, 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 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.

(iii)The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. 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. It may be directly pumped into the creek with prior approval of the concerned authorities. 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.

50 **INSPECTION OF WORK**

In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by Senior Officers of CPWD/CTE and their representatives .The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-charge or other officers as stated above to visit the works shall have been given to the contractor, either himself be present to receive the orders and instructions or have a responsible representative duly accredited in writing, to be present for that purpose.

51 **SUBMISSION OF AS BUILT DRAWINGS**

The contractor shall submit completion plan (4 sets) as required vide General Specifications for Electrical works (Part-I internal)2005 and (Part – II external) 1994 as applicable within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum of 0.1% of Tendered value or Rs.50,000/- whichever is more may be fixed by the Chief Engineer concerned and in this respect the decision of the Chief Engineer shall be final and binding on the contractor.

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

52 **REFUND OF PERFORMANCE GUARANTEE**

The performance guarantee for the work shall be refunded to the contractor soon after the completion of the entire construction works under this agreement and recording of the completion certificate for such agreement and submission of completion plans as constructed and subjected to submission of performance guarantee for Schedule II items as mentioned above.

53 **DEFECT LIABILITY PERIOD (Refund of Security Deposit)**

The defect liability / maintenance period shall be **12 months** after the date of actual completion work for this contract agreement except for the items specified separately like water proofing work, aluminium work etc as specified separately in relevant special conditions/particular specifications. The Security Deposit shall be released after the defect liability period of **12 months** after completion of entire project work (except for the items specified separately wherever applicable like water proofing work, aluminium work etc) and for this the contractor shall have to produce a certificate stating that no defects are pending for rectification from the Engineer-in-Charge, but subject to other provisions specified elsewhere in the contract agreement.

54**GENERAL CLARIFICATIONS**

i) Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, upto the previous day of last date of submission of bids.

ii) Unless otherwise specified in the schedule of quantities, the amount quoted shall be considered, as inclusive of pumping out or bailing out water, if required throughout the construction period for which no extra payment shall be made. This shall also include water encountered from any source such as rains, floods, sub soil water table being high and/or due to any other cause whatsoever.

iii) All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries.

iv) The sand, Coarse/manufacture sand/Pulverized Stone sand/ crushed stone sand should be obtained from approved sources. The same shall be clean and sharp angular grit type. The sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.

v) The amount quoted for this work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T & P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, cess, GST, duties, levies etc. required for execution of the work.

55 **DE-WATERING**

i) De-watering required, if any, shall be done conforming to BIS Code IS: 9759 (guide lines for de-watering during construction) and / or as per the specifications approved by the Engineer-in-Charge. Design of an appropriate and suitable dewatering system shall be the Contractor's responsibility. Such scheme shall be modified / augmented as the work proceeds based on fresh information discovered during the progress of work, at no extra

cost. At all times during the construction work, efficient drainage of the site shall be carried out by the Contractor and especially during the laying of plain cement concrete, taking levels etc. The Contractor shall also ensure that there is no danger to the nearby properties and installations on account of such lowering of water table. If needed, suitable precautionary measures shall be taken by the Contractor. Also the scheme of dewatering adopted shall have adequate built in arrangement to serve as stand-by to attend to repair of pumps etc. and disruption of power / fuel supply. Nothing extra shall be payable on this account.

ii) 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.

56 **INSURANCE POLICIES**

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 equivalent to contract value 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). 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.

57 **Applicable Permits**

i. 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 levied 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 lights either for illumination

or for cautioning the public at night.

ii. The contractor shall ensure that applicable permits mandated by the local bodies and in case warranted for this work are obtained as required under the Applicable Laws.

58. Compliance of directives of Hon'ble National Green tribunal (NGT) dated 04.12.2014 and 10.04.2015 and EIA guidance manual issued in February 2010.

The contractor shall comply with following guidelines on the matter in pursuance of orders passed by Hon'ble National Green Tribunal.

1) The contractor shall not store / dump construction material or debris on metalled road.

2) The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic / inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.

3) The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.

1) The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.

2) The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.

3) The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.

4) The contractor shall ensure that C&D waste is transported to the C&D waste site only and due record shall be maintained by the contractor.

5) The contractor shall compulsory use of wet jet in grinding and stone cutting.

6) The contractor shall comply all the preventive and protective environmental steps as started in the MoEF guidelines, 2010.

7) The contractor shall carry out on-road-inspection for black smoke generating Machinery. The contractor shall use cleaner fuel.

8) The contractor shall ensure that all DG sets comply emission norms notified by MoEF.

9) The contractor shall use vehicles having pollution under control certificate. The Emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.

10) The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.

11)Nothing shall be paid extra for fulfilling of all the above conditions.

59. **Office Infrastructure:**

1. Contractor shall provide Temporary office of size not less than 60 sqm with necessary table and chairs for field staff of Department as per directions of the Engineer in charge.
2. For quality control Measures, preparation of Bills and Monitoring the quality, the contractor shall provide one computer having Intel core i7 processor, MS-Windows – 10, A-3 Coloured Inkjet & A-4 Laserjet Printers, Scanners, UPS etc, with data entry operator in the site office of Engineer in charge.
3. The contractor shall make arrangement for Helmets and leather shoes (meant of construction work at sites) for all field staff of the department during the entire period of construction for safety reasons. One helmet and two pairs of shoes per staff member (maximum twelve members) of the department per year shall be arranged by the contractor.

60. **DOCUMENTATION**:

The Contractor shall render all help and assistance in documenting the total sequences of this project by way of photography, slides, audio / video recording & other records etc. **Nothing extra shall be payable to Contractor on this account.** The original films shall be the property of the Department. No copy shall be prepared without the prior approval of the Engineer in charge.

61. **ROAD:**

a) The contractor shall at his own expense and risk arrange land for accommodation of labour, setting of office, the storage of materials, erection of temporary workshops, construction of approach roads to the site of the work including land required for carrying out of all jobs connected with the execution & completion of the work.

However, the departmental land, to the extent available maybe allowed to be used for the purpose free of rent without accepting any responsibility for the delay, if any, on this

account, The contractor shall have to abide by the regulations of the authorities concerned and the direction of the Officer – in – charge for the use of the land avaiblabe at the site of work. If during construction, it becomes necessary to remove or shift the stored materials shed workshop, access roads, etc., to facilitate execution of any other work by any other agency, the contractor shall carry out the removal of shifting as directed by the Officer in charge and no claim whatsoever, shll be entertained on this account.

b) It shall be deemed that the contractor has satisfied himself as to the nature and location of the work, transport facilities, availability of land for setting up of camp, etc. the department will bear no responsibility for lack of such knowledge &the consequences thereof.

PARTICULAR SPECIFICATIONS

1.1 CLASSIFICATION OF SOILS FOR EARTH WORK IN EXCAVATION

The earth work shall be classified under the following categories and measured separately for each category**.**

a) All kinds of soils: Generally any strata, such as sand, gravel, loam, clay, mud, black cotton moorum, shingle, river or nallah bed boulders, siding of roads, paths etc. and hard core, macadam surface of any description (water bound, grouted tarmac etc.), lime concrete, mud concrete and their mixtures which for excavation yields to application of picks, showels, jumper, scarifiers, ripper and other manual digging implements.

b) Ordinary rock: Generally any rock which can be excavated by splitting with crow bars or picks and does not require blasting, wedging or similar means for excavation such as lime stone, sand stone, hard laterite, hard conglomerate and unreinforced cement concrete below ground level. If required light blasting may be resorted to for loosening the materials but this will not in any way entitle the material to be classified as 'Hard rock'.

c) Hard rock: Generally any rock or boulder for the excavation of which blasting is required such as quartzite, granite, basalt, reinforced cement concrete (reinforcement to be cut through but not separated from concrete) below ground level and the like.

1.2 CONDITIONS FOR WATER:

The contractor shall make his own arrangement for providing water for construction and drinking purpose. Water charges shall not be recovered on account of it. Contractor shall get the water tested from any laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications. All expenses towards collection of samples, packing, transportation including testing charges etc. shall be borne by the contractor.

1.3 FORM WORK :

a. The work shall be done in general as per CPWD Specifications.
b. Only M.S. Centering/shuttering and scaffolding material unless & otherwise specified shall be used for all R.C.C. work to give an even finish of concrete surface. However, marine-ply shuttering in exceptional cases as per site requirement may be used on specific request from contractor to be approved by the Engineer-in-charge.
c. Double steel scaffolding having two sets of vertical supports shall be provided for external wall finish, cladding etc. The supports shall be sound and strong, tied together with horizontal pieces over which scaffolding platform shall be fixed. Scaffolding shall have steel staircase for inspection works at upper levels.
d. Nothing extra shall be paid for the centring and shuttering, circular in shape for the form work of any mean radius on the plan /elevation.
e. In order to keep the floor finish as per architectural drawings and to provide required thickness of the flooring as per specifications, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the Contractor.

f. As per general engineering practice, level of floors in toilets/bath, balconies, shall be kept 12 to 20mm lower than general floor as required. Shuttering should be adjusted accordingly. Nothing extra is payable on this account.

Steel shuttering as approved by the Engineer-in-charge only shall be used by the contractor. Minimum size of shuttering plates shall be 600mm x 900mm except for the case when closing pieces required to complete the shuttering panels. Dented, broken, cracked, twisted or rusted shuttering plates shall not be allowed to be used on the work.

The shuttering plates shall be cleaned properly with electrically driven sanders to remove any cement slurry or cement mortar or rust. Proper shuttering oil or de-bonding compound shall be applied on the surface of the shuttering plates in the requisite quantity before assembly of steel reinforcement.

g. For the execution of centring and shuttering, the contractor shall use propriety 'Reebole" chemical mould release agent of FOSROC or equivalent as shuttering oil as approved by Engineer-in-charge and nothing extra shall be paid on this account.

h. Concreting of upper floor shall not be done until concrete of lower floor has set at least for 14 days but form work and reinforcement can be taken up after the concrete has set at least for three days.

1.4 In case of items not covered by the CPWD specifications referred to above, or particular specifications attached, reference shall be made to appropriate latest IS codes and the decision of the Engineer-in- Charge shall be final and binding on the contractor.
Wherever any reference to any Indian Standard specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued there to or revisions thereof if any, upto the date of receipt of tenders.

1.5 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).

1.6 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.

Fine Aggregate:-

(i) The fine aggregate to be used for all items except in plastering work, shall be with Pulverized Stone Sand/ Crushed Stone Sand (Manufactured Sand) and shall be obtained from only approved sources. For Plastering Work, River Sand shall be used which shall be clean and sharp angular grit type. The sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.

(ii) The contractor should find out the approved source/quarries at his end. To find out the approved source/quarries is the responsibility of contractor.

(iii) Fine Aggregate to be used for cement concrete work i/c RCC, mortar for masonry and plaster work shall be of standard quality and shall be obtained from a source to be got approved from the Engineer-in-Charge and screened as required. It shall be clean and sharp angular grit type. In case of non availability of crushed stone sand, the agency may be permitted at the discretion of Engineer-in Charge to use river/quarry sand on their request

on production of adequate proof of non availability of the same, provided it conforms to grading and other requirements given in CPWD specifications. The change in sand type or source would require revision of Mix Design of Concrete from the approved laboratories such as IIT Vijayawada/ JNTU Vijayawada/ NCCBM Vijayawada or any other laboratory appoved by ADG/ SDG, for which nothing extra shall be paid. In case of use of crushed stone sand, all necessary precautions for CC work, RCC work, masonry work, and all other related works shall be taken by the agency as per relevant CPWD specifications and BIS codes without any extra cost. Nothing extra shall be paid for using river/quarry sand in place of crushed stone sand.

1.7 Before taking up the finishing work such as Flooring, Plastering, **sample unit of toilet,** room etc, contractor shall prepare **full-scale sample for large-scale repetitive items** and get approved from Engineer-in-Charge before taking up for execution on large scale.

1.8 The contractor shall get the samples of various materials, fittings to be used in work approved well in advance from the Engineer-in-Charge before placing orders.

1.9 The contractor shall produce 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 work.

1.10 The structural and architectural drawings shall at all times be properly correlated before executing any work. In case of any discrepancy in the items given in the schedule of quantities appended with the tender and Architectural drawings relating to the relevant item, the former shall prevail unless otherwise given in writing by the Engineer-in-Charge.

1.11 The information and details given in the Architectural & Structural drawings, preliminary soil investigation report and mentioned herein and also elsewhere in the tender documents are being furnished for general information and guidance only. The Department in no case shall be held responsible for the inaccuracy thereof or any interpretation/ or conclusion drawn from them by the contractor.

1.12 The percentage rate quoted by the contractor / agency shall be inclusive of mobilization to site all necessary machineries and equipment's, furnishing, handling, storing, installation including placing, cutting holes, splicing, driving, re-driving, bailing out water, pulling out and removal of the temporary earth retaining structure / strutting etc. from site and other machineries, equipment's, instrumentations etc. men ,materials etc. , other incidental to works, for execution of work, with all safety measures as required for the execution of construction work for safety of surrounding existing buildings structures, parked / moving vehicles, equipment's and machines etc. as per direction of Engineer-in-charge.

2.1 <u>R.C.C.WORKS:</u>

2.2 In respect of projected balconies, projected slabs at roof level and projected verandah, the payment for the RCC work shall be made under the item of RCC slabs. The payment for centering and shuttering of such items shall similarly be paid under the item of centering and shuttering of RCC slab.

2.3 Any cement slurry added over base surface or for continuation of concreting for better bond is deemed to have been in built in the items and **nothing extra shall be payable** nor any extra cement shall be considered in cement consumption on this account.

2.4 As per Technical Circular no.18 issued by CE(CSQ), CPWD, New Delhi vide no.G- 2/SE(QA) /CSQ/69 dated 12.2.2013 , Ultrasonic Pulse Velocity Method of Test for RCC members is required to be conducted for CPWD works as a routine test. The acceptance criteria applicable is as per IS 13311 (Part I) 1992. It may be ensured that this test is carried out in 5% of RCC structural members, to ensure quality of concrete. "Good" and "Excellent" grading are acceptable and below these grading the concrete will not be acceptable.

Wherever concrete is found with less than required quality as per acceptance criteria, repairs to concrete shall be made. Honeycombed areas and loose pockets shall be repaired by grouting using Portland cement Mortar/ Polymer Modified Cement Mortar/ Epoxy Mortar 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 cement slurry made with shrinkage compensating cement/ plain cement slurry etc. shall be resorted to for repairs. Repair to concrete shall be done till satisfactory results are obtained as per the acceptance criteria by retesting of the repaired areas. If satisfactory results are not obtained, dismantling and relaying of concrete shall be done. Nothing extra shall be payable over and above the agreement item for executing such rectification works.

3.0 BRICK WORK

3.1 The brickwork shall be carried out with good quality fly ash cement bricks of class designation 7.5. The physical properties shall conform to those of Fly Ash cement bricks as per CPWD Specifications.

3.2 The rate shall also include for leaving chases / notches for dowels / cramps for all kinds of cladding to come over brick work.

3.3 Brick work provided around shaft or lift walls or around slab cut-outs shall be measured in the brick for corresponding floor level. Nothing extra shall be paid on this account.

1.0 FLOORING:

1.1 All work in general shall be carried out as per CPWD Specifications (Volume 1) 2019 with up-to-date correction slips.

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

4.3 Different stones / tiles used in pattern flooring shall be measured separately as defined in the nomenclature of the item and nothing extra for laying pattern flooring shall be paid over and above the quoted rate. **No additional wastage, if any, shall be accounted for any extra payment.**

4.4 Samples of flooring stones/ Tile (Kota/ Marble/ Granite/ Ceramic tiles/ Vitrified tiles etc.) shall be deposited well in advance with the Engineer-in-Charge for approval. The sizes of stones for flooring shall be of a size not less than 600mmx600mm or as approved by Engineer-in-Charge. Approved samples should be kept at site with the Engineer-in-Charge and the same shall not be removed except with the written permission of Engineer-in-Charge. No payment whatsoever shall be made for these samples.

4.5 The Marble/ Kota/ Granite or any other stone shall be fully supported by the details establishing the quarry and its location or source.

4.6 The rate of items of flooring is inclusive of Providing Sunken Flooring in Bathrooms, Kitchen, W.C., etc. and nothing extra on this account is admissible.

4.7 Chasing of required width and thickness shall be made in brick work at skirting location so as to flush the external surface of skirting with internal plastering. No extra payment towards

making chases in brick work at skirting shall be made and the same is presumed to be inclusive of rate quoted for the item of providing and fixing skirting.

4.8 Single piece of granite stones shall be used for staircase, treads / risers and nothing extra shall paid in this account.

4.9 Proper gradient shall be given to flooring for toilets, verandah, kitchen, courtyard etc. so that the wash water flows towards the direction of floor trap. Any reverse slope if found, shall be made good by the contractor by ripping open the floor/grading concrete and nothing shall be paid for such rectifications.

4.10 The flooring and skirting will be executed as per pattern shown in the Architectural drawings and as per approval of Engineer-in-Charge and nothing extra shall be payable on this account.

4.11 The rate shall include the cost of all materials and labour involved in all the operations. Nothing extra shall be paid for use of cut/sawn stone/ tiles in the work.

4.12 Vitrified Tile Flooring

4.12.1 The tiles shall be of approved make and shall generally conform to Table 12 of IS15622.

The full body Vitrified tiles of specified sizes shall be used & sample of tiles shall be got approved from the Engineer-in-Charge. The Mandatory tests for vitrified tiles shall be got done as per CPWD Specifications (volume-1)/relevant BIS Code.

4.12.2 The vitrified tiles shall be as specified in the item. The tiles shall be of specified colours as shown in the drawings or as approved by Engineer-in-Charge and will be laid in pattern as per architectural drawings. Nothing extra shall be paid for laying tiles in specific pattern. The tiles shall be of first quality of approved make.

FINISHING

The work shall be carried out as per CPWD Specifications.

The Primer, Synthetic Enamel paint, distemper etc., of makes as approved by the Engineer-in- charge and of low VOC, shall only be used and brought to the site of, work in the original sealed containers. The material brought to the site of work shall be sufficient for at least 60 days of work. The material shall be kept under the joint custody of contractor and representative of the Engineer-in-charge. **The empty containers shall not be removed from the site till the completion of the work without permission of the Engineer-in-charge.**

5.0 WATER SUPPLY AND SANITARY INSTALLATIONS:

5.1 The centrifugally cast (spun) iron S&S pipe, Hub less pipes and G.I pipe / CPVC Pipes/ SWR Pipes wherever necessary shall be fixed to RCC columns, beams etc. with steel dash fastener and nothing extra shall be paid for this.

5.2 The contractor shall be responsible for the protection of the sanitary and water supply fittings and other fittings and fixtures against pilferages and breakage during the period of installation and thereafter until the building is handed over.

5.3 The fixing and jointing of vertical CI/SCI pipes/Stacks shall be done on MS brackets as per TECHNICAL CIRCULAR No. 20 Dated 16-04-2013, issued by SE (QA), CSQ, CPWD, New Delhi. A copy of Sketch / Figure showing Fixing Details of Vertical Pipes / Stacks is attached. The piping stack shall be installed at least 50mm, away from the finished / plastered shaft wall. The Item of Brackets and Clamps shall be paid for separately. From floor traps to outside CI fittings only single piece connection pipe shall be used.

6.0 WATER PROOFING TREATMENT

6.1 IN SUNKEN/DEPRESSED FLOOR SLABS

6.1.1 INTEGRAL WATER PROOFING TREATMENT

6.1.1.1 The specification given for the roof surface shall apply for treatment of sunken floor slabs except that instead of brick bats, well burnt brick aggregates of about 40 mm, size shall be used and rounding and tapering at junctions of floor and beam/wall shall be done to a height of 300 mm, The finishing layer of 20 mm. thick cement mortar and cement slurry shall be continued on the vertical surfaces for the entire sunken portion. The finished surface shall be true to line/ level and gradient as specified and of the required thickness.

6.1.1.2 Water proofing treatment shall be cured for 10 days.

6.1.1.3 Before the water proofing treatment is done it shall be ensured that the outlet pipes are properly fixed and the gap between the wall and pipes are properly filled with brick/stoneaggregate and cement mortar admixed with proprietary water proofing compound and grouted with cement slurry admixed with proprietary water proofing compound by injection process.

6.1.2 MEMBRANE WATER PROOFING TREATMENT

6.1.2.1 The work in general shall be carried out as per CPWD Specifications or / as per Manufacturer's Specifications. The Applicators authorized by the manufacturers shall only be engaged in the work.

6.1.2.2 Before the water proofing treatment is done it shall be ensured that the outlet pipes are properly fixed and the gap between the wall and pipes are properly filled with brick/stone aggregate and cement mortar admixed with proprietary water proofing compound and grouted with cement slurry admixed with proprietary water proofing compound by injection process.

6.2 ON TERRACE/ROOF/BALCONIES ETC

6.2.1 The work in general shall be executed as per Manufacturers Specifications or CPWD Specifications as applicable.

6.2.2 **Total quantity of the water proofing compound required shall be arranged only after obtaining the prior approval of the Engineer in Charge in writing.** Materials shall be kept **under double lock** and key and proper account of water proofing compound used in the work shall be maintained. It shall be ensured that the consumption of the compound is as per specified requirements.

6.2.3 The finished surface after water proofing treatment for floor in sunken portion shall have minimum slope of 1 in 48 unless otherwise decided by the Engineer in Charge.

6.2.4 Before commencement of treatment on floor surface, it shall be ensured that outlet drain/spouts have been fixed and the spout openings have been eased and rounded off properly for easy flow of water.

6.2.5 Contractor shall associate himself with anyone of the specialist firms relating to the water proofing treatment with the approval of Engineer in charge.

6.2.6 Water proofing treatment of all types of work: The Contractor(s) shall submit for the approval of the Engineer-in-Charge, the names of specialized agencies, of repute along with their technical & financial capability proposed to be engaged by him within three months from the date of award who have executed satisfactorily at least one similar work of equal or more magnitude or two similar works of minimum 50% magnitude (Financial) of water proofing items in the agreement during the last seven years.

6.3 <u>Guarantee for water proofing works</u>:

Ten years guarantee bond in prescribed proforma **(Annexure-IV)** attached herewith shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability/liabilities under the guarantee bond. However, the sole responsibility of above efficiency of water proofing treatment shall rest with the building contractor. Separate guarantee bonds shall be submitted by the contractor for different type of water proofing works. **Additional 10% (Ten percent) of the cost of water proofing work (other than Security Deposit mentioned in schedule E) shall be retained as security deposit** and the amount so withheld would be released after **Ten** years from the date of expiry of defects liability period under the agreement, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within 7(**seven**) days of receipt of intimation of defects pointed out, and if not attended within the specified period, the same will be got done from other Agency/Agencies at the **risk and cost of contractor**. While attending to the rectification work, the Contractor is responsible to restore and make good any collateral damages likely to occur, to its original specifications. The cost of executing these contiguous works while attending the rectification works shall be borne by the contractor. The security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

7.0 CONDITIONS FOR CEMENT AND STEEL REINFORCEMENT:

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

7.1 CEMENT:-

The contractor shall procure Ordinary Portland Cement (OPC) 43 grade conforming to IS: 8112 as required in the work from reputed manufacturers of cement such as ACC, Ultratech, Shree Cement, Ambuja, Jaypee Cement, Vikarm, Centuary, J.K. Cement, Chettinad, Penna Cement, Bharati cement, Nagarjuna, and Maha or from any other reputed cement manufacture having a production capacity not less than 1 million Ton per annum as approved by ADG, Vijayawada Region, CPWD, Hyd / Chief Engineer- Vijayawada, CPWD, Vijayawada. Supply of cement shall be taken in 50kg 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 test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so. If the contractor uses Puzzolona Portland Cement (PPC) in lieu of Ordinary Portland cement (OPC) necessary cost adjustment shall be made. The cement of approved make as aforesaid in 50 kg bag bearing manufacturer's name and ISI marking, **along with manufacturers test certificate for each lot** shall be procured by the contractor. It shall be noted that, if the contractor uses higher grade of cement, nothing extra shall be paid.

a) IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended upto date) shall be followed in regard to Concrete Mix Portion and its production as under:

   i. The concrete mix design shall be done as "Design Mix Concrete" as prescribed in clause-9 of IS 456 mentioned above.

   ii. Concrete shall be manufactured in accordance with clause 10 of above mentioned IS:456 covering quality assurance measures both technical and organizational, which shall also necessarily require a qualified Concrete Technologist to be available during manufacture of concrete for certification of quality of concrete.

b) Minimum M30 grade of RMC/BMC concrete shall be used in all structural elements of RCC, both in load bearing and framed structure.

c) While using OPC for structural concrete work, no further admixing of fly ash shall be permitted, unless otherwise specified in the item.

7.2 The Supply of cement shall be taken in 50Kg bags bearing manufacturer's name, batch No. and ISI marking, samples of cement shall be taken by the Engineer-in-Charge or his authorized

officer in the presence of the contractor or his authorized representative and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the sample cement does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site of work by the contractor at his own risk and cost within a week's time of written order from the Engineer-in-Charge to do so. and no payment what so ever may be paid to the contractor in this regard.

7.3 The contractor shall supply free of charge the cement required for testing including its Transportation to testing laboratories**. The cost of tests shall be borne by the Contractor.**

7.4 The cement shall be brought at site in bulk supply of approximately 50 tones or as decided by the Engineer-in-Charge.

7.5 The cement godown 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.

7.6 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 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 godown. The cement shall facilitate the inspection of the cement godown by the Engineer-in-charge at any time.

7.7 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.

7.8 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 there in. 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 need to be made.

7.9 The 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.

7.10. 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.

SPECIAL CONDITION FOR STEEL REINFORCING BARS TO BROUGHT BY THE CONTRACTOR:

8.1 The contractor shall procure only ISI marked Low Alloy/ Corrosion Resistant Steel (CRS) reinforcement bars (TMT bars Fe 500D grade or more) from the steel Manufactures such as SAIL, TATA, RINL, JSPL, JSW Or any other Manufacturers approved by Spl.DG (SR), CPWD, Chennai from time to time.

8.2 For reinforced cement concrete or pre-stressed concrete works, the reinforcement bars shall consist of the following grades conforming to IS:1786 : 2008 (Indian Standard specification for high strength deformed steel bars and wires for concrete reinforcement): Fe 415, Fe 415D, Fe 415S, Fe 500D, Fe 500S and Fe 550D.

8.3 The contractor shall obtain manufacture'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.

8.4 The Engineer in charge or his authorized officer shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS:1786 from NABL accredited laboratory or any Government Laboratory.

8.5 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 sample of steel does not conform to BIS codes, the same shall stand rejected and shall be removed from the site of work by the contractor at his own risk and cost within a week's time from written orders from the Engineer-in-Charge to do so and no payment whatsoever in this regard shall be made by the Department.

8.6 The steel reinforcement shall be brought to the site in bulk from manufacturers along with test certificate of each lot supply of 10 tonnes or more or as decided by the Engineer-in-Charge.

8.7 The steel reinforcement shall be stored by the contractor at site of work in such a way as to distortion & 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.

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

Size of bar	For consignment below	For consignment
	100 tonnes	over 100 tonnes
Under 10 mm. dia	One sample for each Consignment of 25 tones or part thereof	One sample for each consignment of 40 tones or part thereof
10mm to 16 mm. dia	One sample for each Consignment of 35 tones or part thereof	One sample for each consignment of 45 tones or part thereof
Over 16 mm. dia	One sample for each Consignment of 45 tones or part thereof	One sample for each consignment of 50 tones or thereof part

8.9 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.**

8.10 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations leading to under designing of the structure, the work shall be summarily rejected, otherwise recovery at the rate so prescribed shall be made after ensuring structural soundness and stability. In case of excess consumption no adjustment shall be made.

8.11 The Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer – in – Charge.

8.12 The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications will be considered for conversion of length of various sizes of M.S. Bars, Steel Bars and T.M.T. bars into Standard Weight.

8.13 Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight. However for the stipulated issue of steel reinforcement up to and including 10mm diameter bars, the actual weight of steel issued shall be modified to take into account the variation between the actual and the standard coefficients and the contractors' accounts will be debited by the cost of modified quantity.

8.14 (a) If the Derived Weight as in sub-para above is less than the Standard Weight as in Sub-para above then the Derived Actual Weight shall be taken for payment provided, if it is within the following tolerances specified in IS1786-2008, otherwise whole lot will be rejected.

Tolerances on Nominal Mass

Nominal Size in mm	Batch	Tolerance Nominal mass Percent	
		on Individual Sample*	Individual sample for coil**
Upto and including 10	+7 %	-8 %	+8 %
Over 10 upto and Including 16	+5 %	-6 %	+6 %
Over 16	+3 %	-4 %	+4 %

* For individual sample plus tolerance is not specified.

**For coils batch tolerance is not specified.

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

8.15 The contractor shall submit original vouchers from the manufacturer for the total quantity of steel supplied under each consignment to be used in the work. All consignment received at the work site shall be inspected by the Site staff along with the relevant documents before acceptance. The contractor shall obtain Original Vouchers and Test Certificates and furnish the same to the Engineer-in-Charge in respect of all the lots of steel brought by him from approved supplier to the site of work. The original vouchers and test certificates shall be defaced by the Site staff and kept on record in the site office.

8.16. The contractor should use factory made round type cover blocks for all RCC works to avoid displacement of bars in any directions and to ensure proper cover.

8.17. No substitution of CRS/low alloy steel with ordinary TMT bars shall be allowed under any circumstances

8.18. Any deviation from approved drawings or specifications must have prior written approval from the competent authority.

8.19. If the contractor fails to plan and procure the steel in advance, leading to delay in execution of RCC works, such delay shall attract **compensation/liquidated damages** as per contract conditions

8.20. The agency shall **study the approved structural drawings** thoroughly at the inception stage and prepare a steel requirement plan for the entire project, including bar bending schedules, detailing size-wise quantity estimates

8.21. The contractor must procure the entire quantity (or phase-wise as per site requirements) of reinforcement steel in advance to avoid any delay in execution.

8.22. Any delay on account of non-availability of the prescribed steel shall be the sole responsibility of the agency.

9. **TOOLS AND PLANTS.**

The necessary T&P shall be deployed by the contractor as required to facilitate and ensure the work to be completed smoothly within the stipulated scheduled time.

10. R.C.C. WORK (DESIGN MIX CONCRETE)

The term machine batched, machine mixed and machine vibrated design mix cement concrete used in the document shall mean the concrete produced in fully automatic concrete batching & mixing plant, placed in position by the concrete pump and vibrated by surface vibrator/ needle vibrator/ plate vibrator, as the case may be to achieve the required strength and durability.

Before start of RCC work concrete Mix Design shall be got done by the contractor from a NABL accredited laboratory/ IIT/ NIT/JNTU laboratory with the approval of Engineer-in-Charge. The RCC Work shall be carried out as per the Mix Design approved by the Engineer-in-charge.No concreting shall be done until the mix design is approved.

GENERAL:-

(i) The RCC work shall be done with RMC of Design Mix Concrete, unless otherwise specified in the nomenclature of items, wherever letter M has been indicated, the same shall imply for the Design Mix Concrete. The Ready Mix Concrete shall be as per IS: 4926 and as per CPWD Specification and guide lines. For the nominal mix in RCC, CPWD specification shall be followed. The Design Mix Concrete will be designed based on the principles given in IS : 456, 10262 and SP 23. The contractor shall carry out design mixes for each class of concrete indicating that the concrete ingredients and proportions will result in concrete mix meeting requirements specified. The cement shall be actually weighed as presumption of each bag having 50 kg shall not be allowed. In case of use of admixture, the mix shall be designed with these ingredients as well.
The specification mentioned herein below shall be followed for Design Mix Concrete.

INGREDIENT

i) Coarse Aggregate: - As per CPWD Specifications
Fine Aggregate: - As per CPWD Specifications.
Water: - As per requirements laid down in IS 456-2000 and CPWD specifications.
Cement: Cement arranged by the contractor will be OPC (in bags) conforming to IS: 8112.

ii) Admixture: - Type of Admixture shall be got approved from Engineer-in-Charge. Admixtures of approved quality shall be mixed with concrete to achieve the desired workability within specified water cement ratio. The admixture shall conform to IS: 9103. The chloride content in the admixture shall satisfy the requirement of BS: 5075. The total amount of chlorides in the admixture mixed concrete shall also satisfy the requirements of IS : 456-2000

iii) The contractor shall not be paid anything extra for admixture required for achieving desired workability without any change in specified water cement ratio for RCC / CC work.

iv) Grade of concrete:- The characteristic compressive strength of various grades of Concrete shall be given as below:-

Sl. No	Grade Designation	Compressive strength on 15cm cubes min 7 days (N/mm2)	Specified characteristic compressive strength at 28 days	Minimum cement content * (Kg per cum)	Maximum water cement ratio
(i)	M-25	As per mix Design	25	330	0.50
(ii)	M-30	As per mix Design	30	350	0.45
(iii)	M-10	As per mix Design	10	220	0.60

The Concrete mix will be designed for minimum workability as specified in para 7 of IS–456-2000

v) WORKABILITY OF CONCRETE (UNLESS OTHERWISE SPECIFIED ELSEWHERE OR AS DECIDED BY ENGINEER IN CHARGE.

Placing Conditions	Degree of Workability	Slump (mm)
(1)	(2)	(3)
Lightly reinforced sections in slabs, beams, walls, columns	Low	25-75
Heavily reinforced section in slabs, beams, walls, columns.	Medium	50-100
Pumped concrete	Medium	75-100

vi) The recommended values of slump for various members to confirm IS 456

vii) In the designation of concrete mix letter M refers to the mix and the number to the specified characteristic compressive strength of 15 cm – Cube at 28 days expressed in N/mm2.

viii) The concrete design mix with or without admixture will be carried out by the Contractor and got tested by any reputed approved NABL accredited laboratory/ university as per direction of Engineer-In-Charge.

For such approval various ingredients for mix design as submitted by contractor shall be sent to the lab/ test houses through the Engineer-In-Charge of the project and got it tested in approved laboratories as may be decided by the Engineer-in-charge. Sample aggregate sent shall be preserved at site by the department. For each different set of coarse aggregates & Fine aggregates, fresh design shall be done and got approved by the Department. The admixture if used by contractor shall be at his own cost without any extra payment.

ix) * Note:The Cement content means ordinary Portland cement of 43 grade.

x) 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 in approved Lab. by Engineer-In- Charge shall be submitted by the contractor as per the direction of the Engineer in charge.

xi) In case of failure of batching plant and site conditions warrants for smooth progress of work, RMC of suitable design mix may be allowed with the written permission of Engineer-in-charge, and with no claim of extra cost from the contractor.

11 **APPROVAL OF DESIGN MIX**

(i) The mix design for a specified grade of concrete shall be done for a target mean compressive strength Tck = Fck + 1.65s
Where Fck = Characteristic Compressive Strength at 28 dayss =
Standard deviation which depends on degree of quality control.

(ii) The degree of quality control for this work is "good" for which the standard deviation (s) obtained for different grades of concrete shall be as per IS relevant IS Standards/ Codes.

(iii) Out of the six specimen of each set, three shall be tested at seven days and remaining three at 28 days. The preliminary tests at seven days are intended only to indicate the strength to be attained at 28 days.

12. CHARGES FOR DESIGN MIX

(i) All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the Contractor.

13. DESIGN MIX CONCRETE FROM FULLY AUTOMATIC COMPUTERISED CONCRETE BATCHING AND MIXING PLANT

13.1 The contractor shall bring Ready Mix Concrete from approved RMC plants as mentioned in the list showing preferred Brands/ Manufacturers/Makes enclosed in this NIT. The contractor has to produce text of MOU proposed to be entered between purchaser (the contractor) and supplier (R.M.C. plant) to the Engineer-in-charge. The Engineer-in-charge shall give approval in writing. The contractor shall draw the MOU with approved RMC plant owner / company and submit to Engineer-in-charge within a week of such approval. The contractor will not be allowed to purchase ready mixed concrete without completion of above stated formalities for use in this project.

13.2 Notwithstanding the approval granted by Engineer-in-charge in aforesaid manner, the contractor shall be fully responsible for quality of concrete including input control, transportation and placement etc.

13.3 In case of site batched design mix cement concrete plant is installed, the capacity of batching and mixing plant is shall be 30 cum/hour with minimum 2 Nos. of Transit mixer and concreting pump along with other necessary equipment's required for doing concrete work without any hindrance.

13.4 The Engineer-in-charge will reserve right to inspect at any such stage and reject the concrete if he is not satisfied about quality of product. The contractor should therefore draw MOU / agreement with RMC owner / company very carefully keeping all terms and conditions / specifications forming a part of this tender document.

(i) The Engineer-in-charge reserves the right to exercise control over the ingredients, water and admixtures purchased, stored and to be used in the concrete including conducting of tests for checking quality of materials, recordings of test results and declaring the materials fit or unfit for use in production of mix.
(ii) Calibration check of the RMC/BMC.
(iii) Weight and quantity check on the ingredients, water and admixtures added for batch mixing.
(iv) Time of mixing of concrete.
(v) Testing of fresh concrete, recordings of results and declaring the mix fit or unfit for use. This will include continuous control on the workability during production and taking corrective action.

13.5 For exercising such control, the Engineer-in-charge shall periodically depute his authorized representative at the RMC/BMC plant. It shall be responsibility of the contractor to ensure that all necessary equipment manpower & facilities are made available to E-in-C and/ or his authorized representative at RMC/BMC plant.

13.6 Ingredients, admixtures & water declared unfit for use in production of mix shall not be used. A batch mix found unfit for use shall not be loaded into the truck for transportation.

13.7 All required relevant records of RMC/BMC shall be made available to the Engineer-in-charge or his authorized representative. The E-in-C shall, as required, specify guidelines & additional procedures for quality control & other parameters in respect of materials and production & transportation of concrete mix, which shall be binding on the contractor & the RMC plant.

(i) Proportioning Concrete

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.

14. Production of Concrete

The concrete shall be RMC/BMC 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: Separate storage bins for different sizes of aggregates, silo for cement; and water storage tank.

Batching equipment Mixers Control panels Mechanical material feeding and elevating arrangements

The Contractor shall arrange for inspection of automatic batching plant within seven days of issue of letter of award to facilitate inspection and approval of same by Engineer-In-Charge. Nothing extra will be paid for this.

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 pass by self-cleansing during drawdown. The batch bins shall in general conform to the requirements of IS :4925.

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 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

i. 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, signalling 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.

ii. Transportation, Placing and Compaction of Concrete.

a) 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 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 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 trans it mixer and other requirements shall conform to IS: 5892.

b) 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.

c) 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 between15 & 30% and that passing through 0.125 mm sieve shall not be less than 5% of the total volume of aggregate. When pumping long distances and through hot weather, set- retarding admixtures may be used. Admixtures to improve workability can be added. Suitability of concrete shall be through pumping shall be verified by trial mixes and by performing pumping tests.

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

a) 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.

15. **WORK STRENGTH TEST**

TEST SPECIMEN

Work strength test shall be conducted in accordance with IS: 516 on random sampling. Each test shall be conducted on six specimens, three of which shall be tested at 7 days and remaining three at 28 days. Additional samples shall be prepared, if required, as per direction of Engineer in charge for testing samples cured by accelerated method as described in IS : 9103.

16. TEST RESULTS OF SAMPLE

The test results of the sample shall be the average of the strength of three specimens. The individual variation shall not be more than + - 15 percent of the average. If more, the test results of the sample are invalid. 90% of the total tests shall be done at the laboratory established at site by the contractor and remaining 10% in the laboratory of Government Engineering colleges, or in any other approved laboratory as directed by the Engineer- in-charge.

17. **STANDARD FOR ACCEPTANCE**

i) Standard of acceptance shall be same as specified in clause 16 of IS 456-2000.

ii) In order to keep the floor finish as per direction of Engineer-in-charge and as per Architectural drawings and to provide required thickness of the flooring as per specification, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the contractor.

18. Ultrasonic Pulse Velocity Method of Test for RCC

(i) 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 uniformly 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.

(ii) 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	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.

iii) Pulse velocity method of test of concrete is to be conducted for CPWD works 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.

iv) 5% of the total number 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.

v) 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.(refer relevant chapters from CPWD Hand Book on Repairs and Rehabilitation of RCC Buildings).Repair 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.

19. MEASUREMENT

As per CPWD specifications.

20. TOLERANCES

As per CPWD specifications.

RATE :-

i) The rate includes the cost of materials and labour involved in all the operations described above except for the cost of centering, shuttering and reinforcement, which will be paid for separately.

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ii) In case of actual average compressive , strength being less than specified strength which shall be governed by Para ' Standard of Acceptance" as above the rate payable shall be worked out accordingly on the basis of analysis.

iii) In case of rejection of concrete on account of unacceptable compressive strength, governed by Para 'Standard of Acceptance' as above, the work for which samples have failed shall be redone at the cost of contractors. However, the Engineer in charge may order for additional tests (like cutting cores, ultrasonic pulse velocity test, load test on structure or part of structure etc) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The contractor shall take remedial measures necessary to retain the structure as approved by the Engineer in charge without any extra cost. However, for payment, the basis of rate payable to contractor shall be governed by the 28 days cube test results and reduced rates shall be regulated in accordance with Para 5.4.13 of CPWD specification 2019,Vol.-I.

iv) As per general engineering practice, level of floors in toilet / bath, balconies, shall be kept 12 to 20mm or as required, lower than general floors shuttering should be adjusted accordingly. The landing level of mumty / Staircase cabin shall be Kept one riser level higher than adjoining slab level so as to accommodate water proofing treatment over terrace slab. In case of kitchen slab the portion of floor trap below kitchen platform be kept at lower level as per drawings. Nothing extra is payable on this account.

v) For the execution of centering and shuttering, the contractor shall use propriety "Reebole" chemical mould release agent of FOSROC or equivalent as shuttering oil as approved by Engineer-in-charge and nothing extra shall be paid on this account.

21. <u>COVER/SPACER BLOCK</u>

Contractor shall use factory made cover blocks of approved shape and strength for all RCC works to avoid displacement of bars in any direction and to ensure proper cover. Alternatively, the contractor may manufacture the cover blocks as per approved methodology by Engineer-In-charge. The grade of concrete for cover blocks shall be more than the grade of concrete in which they will be used. The concrete shall be fibre reinforced concrete with 6mm downgraded aggregate. Shape & size shall be as decided by Engineer-In-charge.

CURING:

i) The contractor shall ensure moist curing to all structural members in general. Curing shall be done with 2 or 3 layers of wet hessian cloth covered by PVC sheets in order not to allow the moisture to evaporate.

ii) Since the design mix is having controlled water content, the contractor shall protect the concrete from drying shrinkage by resorting to early age curing.
Covering of wet hessian cloth shall be done after the onset of the final setting time.

iii) The contractor shall submit methodology of proposed curing which ensures continuous maintenance of required temperature regime.

iv) Membrane curing by chemical compounds may be allowed at places which are normally inaccessible and repair works and nothing extra is payable on this account. If curing compounds are proposed for any particular use, the contractor shall obtain permission for use of any particular brand of compounds from Engineer-In-Charge.

RATES: -

(i) The rate includes the cost of materials, labour and T&P, including mixing, placing, pumping of concrete and transportation involved in all the operations described above except for the cost of

centring, shuttering & reinforcement which will be paid for separately.

(ii) In case of rejection of concrete on account of unacceptable compressive strength, governed by para "Standard of Acceptance" as above, the work for which samples have failed shall be redone at the cost of contractor. However, the Engineer-in-charge may order for additional tests (like cutting cores, ultrasonic pulse velocity test, load test on structure or part of structure, etc) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The Contractor shall take remedial measures necessary to retain the structure as approved by the Engineer-in-charge without any extra cost. However, for payment, the basis of rate payable to contractor shall be governed by the 28 days cube test results and reduced rates shall be regulated in accordance with CPWD Specifications.

22. <u>ALUMINIUM WORK</u>

Two years guarantee bond in prescribed proforma **(Annexure-V)** attached herewith shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability/liabilities under the guarantee bond. However, the sole responsibility of above efficiency of Aluminum Work shall rest with the building contractor. An amount of 5% of the value of aluminium work shall be withheld from Running account / Final bills as additional security and the same shall be released after completion of guarantee bond period.

i. The material for the work shall be procured from the approved manufacturer as per the list attached with the tender documents. The Contractor shall procure and submit samples of various materials to be used in the work for the approval of Engineer-in-Charge and no work shall commence before such samples are approved. Samples of un-anodized as well as polyester powder coated aluminum sections, microwave cured EPDM gaskets, glass, stainless steel screws, anchor fasteners, hardware and any other material or components requiring approval of samples, in opinion of Engineer-in-Charge, shall be submitted for the approval as mentioned above. The above samples shall be retained as standards of materials and workmanship.

ii. The Contractor shall prepare the shop drawings for the aluminum windows giving details of the various aluminum sections, microwave cured EPDM gaskets, cleats, anchor fasteners, hardware, sealants, glass etc. and submit the same for the approval of Engineer-in-Charge.

iii. Only after the approval of the samples and the shop drawings by the Engineer-in-Charge, the Contractor shall procure the material for the work. All materials brought to the site by the Contractor, for use in the work, as well as fabricated components shall be subject to inspection and approval by Engineer-in-Charge. The Contractor shall produce manufacturer's test certificates for any material or particular batch of materials supplied by him.

iv. The Contractor shall prepare a finished sample of the aluminum window along with glazing panel and fittings etc. for approval of workmanship and material. Nothing extra shall be payable on this account.

v. Aluminum sections to be used for various works shall be appropriate to meet technical, structural, functional and aesthetic considerations. The polyester powder coating shall be carried out in an approved factory / workshop as specified in the tender documents.

vi. **Fabrication**

All joints shall be accurately fabricated and be hairline in appearance. The finished surface shall be free from visible defects. All the aluminium windows/ ventilators /doors shall be factory made

and shall be brought to site for assembly and fixing.

All hardware used shall conform to the relevant specifications and as per samples approved by the Engineer- in-Charge. Design, quality, type, number and fixing of hardware shall be generally in accordance with architectural drawings and as approved by the Engineer-in-Charge before use.

All doors, windows, ventilators and glazing etc. shall be made water tight with microwave cured EPDM gaskets and weather silicone sealants to the satisfaction of the Engineer-in-Charge, for which nothing extra shall be payable.

The frames shall be strictly as per Architectural drawings, the corners of the frame being fabricated to the true right angles. Both the fixed frames and openable shutter frames shall be fabricated out of sections cut to required length, mitered and mechanically jointed for satisfactory performance. All members shall be accurately machine milled and fitted to form hairline joints. The jointing accessories such as aluminum cleats, stainless steel screws etc. shall not to cause any bi-metallic reaction by providing separators, wherever required.6.5 Vertical members of the aluminium frame work shall be embedded in the floors, wherever required, by cutting and making good of the floor.

23. FIXING OF ALUMINIUM FRAME WORK

The screws used for fixing fixed aluminium frames of the aluminium windows to masonry walls / RCC members and aluminium members to other aluminium members shall be of stainless steel of approved make and quality and of stainless-steel grade 304. Threads of machine screws used shall conform to requirement of I.S. 4218.

For the aluminium windows, the gap between the aluminium frames and the R.C.C / Masonry and also any gaps in the various sections shall be filled with weather silicone sealant DC 795 of Dow Corning or equivalent in the required bite size, to ensure water tightness including providing and fixing backer rod , wherever required. The weather silicone sealant shall be of such approved colour and composition that it would not stain or streak the masonry / R.C.C. work. It should not sag or flow and shall not set hard or dry out under any conditions of weather and shall be tooled properly. The weather silicone sealant shall be used as per the manufacturer’s specifications and shall be of approved colour and shade. Any excess sealant shall be removed / cleared. Nothing extra shall be payable for the above.

Fixing of glass panes shall be designed in such a way that replacing damaged / broken glass panes is easily possible without having to remove or damage any members or interior finishing materials.

Stainless steel adjustable heavy duty friction hinges and the aluminium handles for the open able side hung windows shall be of "Earl Bihari” Ebco, make or equivalent as approved by the Engineer-in-Charge. 2 nos. friction hinges shall be provided per shutter.

24. PROTECTIONS AND CLEANING:

All glass panes shall be retained within aluminium framing by use of exterior grade microwave cured EPDM gaskets. Use of glazing or caulking compounds around the perimeter of glass will

not be permitted. There shall be no whistling or rattling. Before installation of glass, Contractor shall ensure the following: All glazing rebates shall be square, to plumb, true to plane, dry and free from dust.

Glass edge shall be clean and cut to exact size and grounded Low 'E' – Heat strengthened glass of specified thickness in doors, windows, ventilators and fixed glazing etc. shall be of approved make and standard quality conforming to C.P.W.D. Specifications. 3 mm thick glass panes shall be provided for openings not exceeding 0.5 sqm. For openings exceeding 0.5 sqm in area, 5.0 mm thick glass panes shall be provided unless specified otherwise.

26. ROAD WORK

26.1 Formation of road alignment as per approved drawing including cutting and embanking as per profile, rolling and preparing the sub-grade fit for laying road.

26.2 All roads will be Bitumen roads, as per MORTH specifications (fifth edition), laid over sub grade duly prepared with power roller of required thickness as per design. The edges of roads should be at least 20cm above the adjoining ground level.

26.3 The work shall be carried out using MORTH Specifications for Road and bridge work (Fifth Revision).

26.4 1 Wetmix Macadam layer of specified thickness shall be laid as per MORTH specifications. 1st layer of specified thickness shall be laid first and then after checking of field density/compaction, 2nd layer will be laid.

26.5 Detals Specification of road work : CPWD Specifications 2019 Vol.I and II with upto date corrections slips shall be followed.

26.6 The contractor shall have to necessarily deploy hydrostatic paver finisher fitted with the electronic sensor device with suitable screed capable of spreading, tamping and finishing the mix true to the specified lines, grades and cross sections of the Roads.

26.7 The contractor shall have to necessarily deploy the Roads rollers, for BM & SDBC for their compaction as per relevant MORTH specifications, as described below: -

i) For initial Rolling 8 to 10 tonne static weight smooth wheel roller (3 wheels or tandem.)

ii) For intermediate Rolling Vibratory roller of 8 to 10 tonne static weight or pneumatic tyred roller of 12 to 15 tonne weight, with minimum 9 wheels and minimum tyre pressure of 5.6 Kg/ Cm 2.

iii) For Final Rolling It shall be done with 6 to 8 tonne smooth wheeled tandem rollers.

iv) Roller should not move at a speed of more than 5km. / hours.

26.8 Mix shall be prepared in hot mix plant of adequate capacity and capable of yielding a mix of proper and uniform quality with thoroughly coated aggregate.

26.9 The job mix shall be got designed by the contractor from the Govt. approved laboratory, Govt. Institute or as decide by the Competent Authority and its cost shall be borne by the contractor. The mix shall be designed in such a proportion that minimum laboratory density

required as per CPWD/MORTH specification for Bituminous Macadam and semi Dense Bituminous concrete is achieved. The contractor shall follow the instructions contained MORTH specification strictly and provide all necessary details as specified there in.

26.10 TACK COAT

The work shall consist of application of single coat of low viscosity liquid bituminous material to an existing Roads surface preparatory to another bituminous construction over it.The binder used for tack coat shall be bitumen of suitable grade as specified in nomenclature of item. The work shall be done strictly in accordance with clause 503 and sub clause thereto of MORTH specifications for Roads & Bridge work (5th Revision April 2013).

26.10.1 The emulsified bitumen for tack coat on Roads shall be Medium Setting (MS) type conforming to IS: 8887-1995. The bitumen emulsion shall be brought at site in one lot in sealed drums and shall be got verified and checked by the representative of Engineer-in-Charge before its use.

26.11 CLEANING AND PREPARATION OF THE SURFACE:-

The surface on which the tack coat to be applied shall be clean and free from dust, dirt, and any extraneous material and be otherwise prepared in accordance with the requirements of clauses 501.8 and 902 as appropriate. Immediately before the application of the tack coat, the surface shall be swept clean with a mechanical broom and high pressure jet or by other means as directed by the Engineer-in-charge.

26.11.1 MATERIAL

26.11.2 AGGREGATE

Aggregates shall consist of crushed stone aggregate conforming to grading &specifications as laid down in paras 504.2.2. to 504.2.5 of MORTH specifications (5th Revision April 2013). No natural aggregate or sand shall be allowed.

26.11.3 RATE

The contract unit rate for the Bituminous Macadam shall be the payment in full for carrying out all the required operations including full compensation for all components listed in clause 501.8.8.2(i) to (vi) of MORTH specifications (5th Revision April 2013).

26.12 GUARANTEE BOND

If any defects is noticed during maintenance period, shall be rectified by the contractor within seven days by re-executing the defective **Bitumen works**.

26.12.1 The contractor shall have to produce documentary evidence having purchased thelime/ filler on the basis of which payment shall be made.

26.13 Compaction

The degree of compaction for the various bituminous layers shall be established taking corefrom the laid bituminous layer. The bill of the contractor shall be paid only if the same qualifies as per the specifications/ requirements, Sand replacement method for verifying thedegree of compaction of laid bituminous layers will not be allowed.

26.14 .CONDITIONS FOR PROCUREMENT AND ACCOUNTING OF BITUMEN:

The contractor shall procure bitumen of required grade as specified conforming to IS: 73- 1992 with up to date amendments and other relevant codes from the manufactures ofrepute like Indian Oil Corporation Ltd., Hindustan Petroleum Corporation Ltd. And Bharat Petroleum Corporation Ltd. As approved by Ministry of Petroleum Corporation Ltd. And Bharat Petroleum Corporation Ltd. As approved by Ministry of Petroleum, Govt. of India andholding license to use ISI certification mark for their products.

26.14.1 MODE OF PROCUREMENT :-

Bitumen for tack coat shall be brought at site in sealed drums only bearing followingmarkings (legible):-

i) Name of Manufacturer

ii) Gross Wt. Net Wt. Total weight.

iii)Month and year of Manufacture.

iv) Use before…….Date) or Expiry date.

v)Type and Grade.

vi) Batch Number.

vii)„ISI‟ Certification and Standard Mark.

viii)Name of contractor/ Supplier.

ix)Serial No. & Total Nos. of drums in each batch.

26.14.2 For providing bituminous surface like BM, SDBC etc. the bitumen shall be procured in bulk and stored at the hot mix plant site. The drums/ container shall bear the marking as mentioned in para 2.1 above. Nothing extra shall be paid to the contractor, if the bitumen is procured by him in drums.

26.14.3 The contractor will produce original challan/ voucher for purchase of bitumen and emulsion from IOCL/HPCL/BPCL/IBP/HINCOL as a proof of having purchased the material from manufacturer. The voucher/ challan shall be returned to the contractor after verification and making necessary endorsement.

26.14.4 Bitumen of specified grade shall be brought to plant site in one lot for theoretical requirement upto 100 tonnes and in lots of 100 tonnes or more for theoretical requirement of more than 100 tonnes. The day to day receipt and issue accounts of bitumen shall be maintained by the Junior Engineer-in-Charge and signed daily by the Contractor or his authorized agent on the following proforma :-

26.14.5 When bitumen is issued in drums, the same shall be stacked in fenced enclosures, to be provided by the contractor at his own cost, as directed by the Engineer-in-Charge, on one side of the roadway. The contractor shall be responsible for the watch & ward and safety of bitumen. The contractor shall facilitate the inspection of bitumen stockyard by the Engineer- In-charge or his representative at any time.

26.14.6 Material shall be kept in the custody of the contractor. The empty containers shall not be removed from the site of work till the relevant items of work has been completed and permission obtained from the Engineer-in-charge. No heating of bitumen in drums for any purpose whatsoever shall be allowed Bitumen purchase vouchers shall be provided by the contractor.

26.15 SAMPLES AND TESTING

The contractor shall have to obtain and furnish test certificates issued by manufacturer to the Engineer-in-Charge in respect of bitumen procured by him. The samples shall be collected at discretion of Engineer-in-Charge and got tested as per provisions of IS : 73/MORTH latest edition /CPWD specifications from the laboratories approved by him.

26.16 The contractor shall supply, free of charge, the bitumen required for testing. The cost of specimen samples and testing charges shall be borne by contractor.

26.17 In case the test result indicate that the bitumen procured by the contractor does not conform to the relevant BIS codes/ IRC Publications, the same lot shall stand rejected and shall be removed from the site of work by the contractor at his own cost within a week"s time of written order from Engineer-in-Charge to do so.

26.18 The bitumen content in bituminous mix shall be checked by conducting the bitumen extraction test conforming to IRC: SP.11 at regular interval during progress of work the actual consumption of bitumen shall be worked out based on such test results. The theoretical consumption shall be worked out based on the design mix formula and the actual consumption (based on extraction test as well as MAS account) if found less than theoretical one, the recovery shall be made from contractor @ as mentioned under Clause-38 in Schedule-F for less use of bitumen. The work found executed with bituminous mix having bitumen content lesser than theoretical consumption required shall be considered as sub- standard work and hence shall be liable for rejection. However, nothing extra shall be paid if actual consumption so worked out is higher than theoretical consumption. This is without prejudice to action under other relevant clauses of the agreement.

26.19 Bitumen brought to site /Hot Mix Plant and bitumen remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-Charge.

NOTE: - Nothing extra shall be paid for cartage of bitumen to the site of work

27. Guarantee for Structural Glazing works:

Two years guarantee bond in prescribed proforma **(Annexure-V)** attached herewith shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability/liabilities under the guarantee bond. However, the sole responsibility of above efficiency of water proofing treatment shall rest with the building contractor. Separate guarantee bonds shall be submitted by the contractor for different type of water proofing works. **Additional 5% (five percent) of the cost of Structural Glazing work (other than Security Deposit mentioned in schedule E) shall be retained as security deposit** and the amount so withheld would be released after **two** years from the date of expiry of defects liability period under the agreement, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within **7**(**seven**) days of receipt of intimation of defects pointed out, and if not attended within the specified period, the same will be got done from other Agency/Agencies at the **risk and cost of contractor**. While attending to the rectification work, the Contractor is responsible to restore and make good any collateral damages likely to occur, to its original specifications. The cost of executing these contiguous works while attending the rectification works shall be borne by the contractor. The security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

ENVIRONMENT MANAGEMENT

1. AIR QUALITY

1.1 The Contractor shall take all necessary precautions to minimize fugitive dust emissions from operations involving excavation, grading, and clearing of land and disposal of waste. He shall not allow emissions of fugitive dust from any transport, handling, construction or storage activity to remain visible in atmosphere beyond the property line of emission source for any prolonged period of time without notification to the Engineer-in-Charge.

1.2. The Contractor shall use construction equipment designed and equipped to minimize or control air pollution.

1.3. If after commencement of construction activity, Engineer-in-Charge believes that the Contractor's equipment or methods of working are causing unacceptable air pollution impacts then these shall be inspected and remedial proposals shall be drawn up by the Contractor, submitted for review to the Engineer-in-Charge and implemented.

1.4. In developing these remedial measures, the Contractor shall inspect and review all dust sources that may be contributing to air pollution. Remedial measures include use of additional/ alternative equipment by the Contractor or maintenance/modification of existing equipment of the Contractor.

1.5. In the event that approved remedial measures are not being implemented and serious impacts persist, the Engineer-in-Charge may direct the Contractor to suspend work until the measures are implemented as required under the Contract.

1.6. Contractor's transport vehicles and other equipment shall conform to emission standards fixed by Statutory Agencies of Government of India or the State Government from time to time. The Contractor shall carry out periodical checks and undertake remedial measures including replacement, if required, so as to operate within permissible norms.

1.7. The Contractor shall establish and maintain records of routine maintenance program for internal combustion engine powered vehicles and equipment used on this project.

1.8. The Contractor shall cover loads of dust generating materials like debris and soil being transported from construction sites. All trucks carrying loose material should be covered and loaded with sufficient free-board to avoid spills through the tail board or side boards

1.9. The Contractor shall promptly transport all excavation disposal materials of whatever kind so as not to delay work on the project. Stockpiling of materials will only be allowed at sites designated by the Engineer-in-Charge. The Contractor shall place excavation materials in the dumping/disposal areas designated by Engineer-in-Charge.

1.10. The temporary dumping areas shall be maintained by the Contractor at all times until the excavate is re-utilized for backfilling or as directed by Engineer-in-Charge. Dust control activities shall continue even during any work stoppage.

1.11. The contractor shall place material in a manner that will minimize dust production. Material shall be minimized each day and wetted, to minimize dust production. During dry weather, dust control methods must be used daily especially on windy, dry days to prevent any dust from blowing across the site perimeter.

1.12. The Contractor shall water down construction sites as required to suppress dust, during handling of excavation soil or debris or during demolition. The Contractor will make water sprinklers, water supply and water delivering equipment available at any time that it is required for dust control use. Dust screens will be used, as feasible when additional dust control measures are needed specially where the work is near sensitive receptors.

1.13 The Contractor shall provide a wash pit or a wheel washing and/or vehicle cleaning facility at the exits from work sites. At such facility, high-pressure water jets will be directed at the wheels of vehicles to remove all spoil and dirt.

2. WATER QUALITY

2.1 The Contractor shall comply with the Indian Government legislation and other State regulations in existence so far as they relate to water pollution control and monitoring. A drainage system should be constructed at the commencement of the Works, to drain off all surface water from the work site into suitable drain outlet.

2.2. The Contractor shall provide adequate precautions to ensure that no spoil or debris of any kind is pushed, washed, falls or deposited on land adjacent to the site perimeter including public roads or existing stream courses and drains within or adjacent to the site. In the event of any spoil or debris from construction works being deposited or any silt washed down to any area, then all such spoil, debris or material and silt shall be immediately removed and the affected land and areas restored to their natural state by the Contractor to the satisfaction of the Engineer-in-Charge.

2.3. The Contractor shall ensure that earth, bentonite, chemicals and concrete agitator washings etc. are not deposited in the watercourses but are suitably collected and residue disposed off in a manner approved by local authorities.

2.4. All water and waste products (surface runoff and wastewater) arising on the site shall be collected and removed from the site via a suitable and properly designed temporary drainage system and disposed off at a location and in a manner that will cause neither pollution nor nuisance.

2.5. Any mud slurry from drilling, diaphragm wall construction or grouting etc. shall not be discharged into the drainage system unless treatment is carried out that will remove silt, mud particles, bentonite etc. The Contractor shall provide treatment facilities as necessary to prevent the discharge of contaminated ground water.

2.6. The Contractor shall discharge wastewater arising out of site office, canteen or toilet facilities constructed by him into sewers after obtaining prior approval of Engineer-in-Charge. A wastewater drainage system shall be provided to drain wastewater into the sewerage system.

2.7. The bentonite mixing, treatment and handling system shall be established by the contractor giving due regard to its environmental impacts. The disposal of redundant bentonite shall be

carefully considered whether in bulk or liquid form. The disposal location will be advised and agreed with the relevant authorities.

2.8. The Contractor shall take measures to prevent discharge of oil and grease during spillage from reaching drainage system or any water body. Oil removal / interceptors shall be provided to treat oil waste from workshop areas etc.

2.9. The Contractor shall apply to the appropriate authority for installing bore wells for water supply at site.

3. WASTE MANAGEMENT

3.1. The contractor is required to develop, institute and maintain a Waste Management Programme (WMP) during the construction of the project for his works, which may include:-

i) Identification of disposal sites.
ii) Identification of quantities to be excavated and disposed off.
iii) Identification of split between waste and inert material
iv) Identification of amounts intended to be stored temporarily on site location of Such storage.
v) Identification of intended transport means and route.
vi) Obtaining permission, where required, for disposal.

3.2. Such a mechanism is intended to ensure that the designation of areas for the segregation and temporary storage of reusable and recyclable materials are incorporate into the WMP. The WMP should be prepared and submitted to the Engineer-in-Charge for approval.

3.3. The Contractor shall handle waste in a manner that ensures they are held securely without loss or leakage thus minimizing potential for pollution. The Contractor shall maintain and clean waste storage areas regularly.

3.4. The Contractor shall remove waste in a timely manner and dispose off at landfill sites after obtaining approval of Conservancy and Sanitation Engineering Department of Municipal Corporation for its disposal.

3.5. Burning of wastes is prohibited. The Contractor shall not burn debris or vegetation or construction waste on the site but remove it.

3.6. The Contractor shall make arrangement to dispose of metal scrap and other saleable waste to authorized dealer and make available to the Engineer-in-Charge on request, records of such sales.

4. HAZARDOUS WASTE MANAGEMENT

4.1. If encountered or generated as a result of Contractor's activity, then waste classified as hazardous under the "Hazardous Wastes (Management & Handling) Rules, 1989, amendments 2000, 2003" shall be disposed off in a manner in compliance with the procedure given in the rules under the aforesaid act.

4.2. Chemicals classified as hazardous chemicals under "Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 of Environment (Protection) Act, 1986 shall be disposed off in a manner in, compliance with the procedure given in the rules under the aforesaid act.

4.3. The contractor shall identify the nature and quantity of hazardous waste generated as a result of his activities and shall file a 'Request for Authorisation' with A.P Pollution Control Committee along with a map showing the location of storage area.

4.4. Outside the storage area, the contractor shall place a 'display board', which will display quantity and nature of hazardous waste, on date. Hazardous Waste needs to be stored in a secure place.

4.5. It shall be the responsibility of the contractor to ensure that hazardous wastes are stored, based on the composition, in a manner suitable for handling, storage and transport. The labeling and packaging is required to be easily visible and be able to withstand physical conditions and climatic factors.

4.6. The contractor shall approach only Authorized Recycler of Hazardous Waste for disposal of Hazardous Waste, under intimation to the Engineer-in-Charge

4.7. Submittal of all environment related documents and records pertaining to monitoring and trend analysis on key parameters such as but not limited to consumption/efficient use of resources such as energy, water, material such as cement, fly ash, iron and steel, recycle/reuse of waste etc that shall have demonstrated continual improvement in the implementation of Environmental management System. Failure to do so the employer shall impose appropriate penalty as indicated under penalty clause.

5 **ENERGY MANAGEMENT.**

5.1. The contractor shall use and maintain equipment so as to conserve energy and shall be able to produce demonstrable evidence of the same upon of Engineer-in-Charge request.

5.2. Measures to conserve energy include but not limited to the following:

i) Use of energy efficient motors and pumps.

ii) Use of energy efficient lighting, which uses energy efficient luminaries.

iii) Adequate and uniform illumination level at construction sites suitable for the task.
iv) Proper size and length of cables and wires to match the rating of equipment.
v) Use of energy efficient air conditioners.

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Special Condition Regarding Monitoring of Quantities and Execution of Deviated /Substitute/Extra Items

1. **Monitoring of Quantities:**

The contractor shall regularly monitor the quantities of all items being executed and compare the same with the quantities provided in the Agreement/NIT/BOQ. Any variation or likely overrun in quantity beyond the permissible deviation limit as specified under Clause 12 of the GCC 2023 shall be brought to the notice of the Engineer-in-Charge in writing well in advance, prior to further execution of the concerned item.

2. **Execution of Extra/Substitute Items:**

In case of any Extra or Substitute item arising during the course of execution, the contractor shall intimate the Engineer-in-Charge in writing well in advance before taking up the execution of such item(s). No such item shall be executed without obtaining the prior formal written approval from the Engineer-in-Charge.

The contractor shall submit the following details for each extra or substitute item proposed:

- Justification for the item
- Detailed quantity to be executed
- Rate analysis supported with current market rates and CPWD-approved specifications
- Total financial implication of the item

- **Admissibility of Payment:**

Payment for any extra or substitute item shall be made only after the formal approval of the same by the competent authority, as per Clause 12 of CPWD General Conditions of Contract (GCC 2023). Execution of any such item prior to approval shall be entirely at the risk and cost of the contractor, and no claim on account of such unauthorized execution shall be entertained.

3. **Liability for Unauthorized Execution:**

Any work executed beyond the sanctioned quantities, or any extra/substitute item taken up without prior written instructions and approval, shall not be paid . These conditions shall be deemed to be a part of the contract and will be binding on the contractor. The contractor shall also ensure compliance with all related provisions under Clause 12 of GCC 2023 and follow the Standard Operating Procedures issued by CPWD regarding approval and execution of extra and substitute items.

Special Conditions for Handing Over of Site.

1. Stage-wise Handing Over of Site

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"The site for the maintenance work shall be handed over in stages as per the availability and clearance from the department/user agency. The contractor shall plan and execute the work accordingly. The staged handing over shall not be treated as a hindrance or ground for extension of time unless otherwise decided by the Engineer-in-Charge."

2. No Claim for Delay due to Piecemeal Handing Over

"The contractor shall not claim any compensation or delay on account of non-availability of full site at once. The contractor is deemed to have quoted rates keeping in view the staged handing over of the site."

3. Provision for Site Readiness Certificate

"A site readiness certificate indicating the portion handed over, date and condition shall be issued and signed by both Engineer-in-Charge or his authorized representative and contractor for each stage. Work shall be commenced by the contractor accordingly."

4. Programme of Work to Match Site Availability

"The contractor shall submit a detailed work programme in consultation with the Engineer-in-Charge, aligning with the stage-wise availability of site. Any revision of the programme shall be done only with prior approval of the Engineer-in-Charge."

5. Time Extension in Exceptional Cases

"Only in exceptional cases, where a significant delay in handing over of any stage affects the overall completion, EOT may be considered as per Clause 5 of GCC, after detailed justification and approval of the competent authority."

6. Hindrance Register & Site Order Book Maintenance

"A Hindrance Register and Site Order Book shall be maintained at site. The contractor shall record any issues related to site availability immediately. The same shall be verified and acknowledged by the JE/AE and action shall be taken by the Engineer-in-Charge accordingly."

7. No Arbitrary EOT without Justification

"Any request for extension of time due to partial handing over of site shall be considered only if the same is recorded contemporaneously in the Hindrance Register and certified by the Engineer-in-Charge."

8. Responsibility of Site Management

"It shall be the responsibility of the contractor to plan labour and materials in line with site handed over. No claims shall be entertained for idling of labour or material unless delay is established due to reasoned opined of Engineer-in-charge is beyond the contractor’s control and acknowledged in the hindrance register."

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PREFERRED MAKE OF MATERIALS (FOR CIVIL WORKS)

NOTE: - 1) A List of Preferred Brand Names of Various Materials / Products are shown below for usage in execution of Work. However, approved equivalent material of any other Specialized Companies / Firms may also be used, in case it is established that the Brands Specified below are not available in the market or in other unavoidable circumstances and subject to Approval of the alternate Brand by the Engineer-In-charge. However, in case, the equivalent model so approved, is cheaper than the model already mentioned in item/approved makes list, the price adjustment will be made based on the difference in market rate. In case, the rate of subsequently approved model is more, no extra payment will be made on this account.

2) It must be ensured, in general, that all materials to be used in the works shall bear BIS Certification mark. In cases where for a particular material/product, BIS Certification Mark is not available, then the material proposed to be procured can be used subject to the condition that it should conform to CPWD Specifications and relevant BIS codes. In such cases written approval of the Engineer-in - Charge shall be obtained before use of such material in their works.

3) The list given below does not absolve the Executing Agency from their responsibility for using these products. It is only after, they are satisfied about the quality and performance, the products shall be used. To achieve this, proper check on the quality of the product, actually to be used, should be exercised.

4) The Chief Engineer, CPWD, Vijayawada reserves the right to add or delete any materials and brands in the list of approved makes. However, in case, the equivalent model so approved, is cheaper than the model already mentioned in item/approved makes list, the price adjustment will be made based on the difference in market rate. In case, the rate of subsequently approved model is more, no extra payment will be made on this account.

Sl. No	Material Description	Brand	Makes *
1	AAC Blocks	A B Dinesh	A B Dinesh
		Areocon	HIL
		Bilt	Bilt
		Ecorex	Ecorex
		Fastbuilt	Fastbuilt
		Kncrete	Koncrete
		NCL	NCL VEKA Ltd.
		Nucon	Green Way building materials India Pvt. Ltd.
		Renacon	Renaatus Procon Pvt. Ltd.
		Siporex	SIPOREX
		Xtralite	Ultra Tech Cement Ltd

Sl. No	Material Description	Brand	Makes *
		SMART BRIX	M/s Smart Brix Infra Technology Pvt. Ltd., Jaggaiahpet Mandal, Krishna District, A.P. - 521175
		Fusion Brand	M/s Fusion Building Materials (Vizag) Private Limited
2	Acoustic Insulation	Anutone	Anutone Acoustics Ltd.
		Himalyan Accoustics	Himalyan Accoustics
		Kanuf	Knauf Gypsum India Pvt. Ltd.
		Lloyd Insulation	Lloyd Insulation (India) Ltd.
		Saint Gobain Gyproc	Saint Gobain Gyproc India
		Twingerinsul	U.P. Twiga fiber glass ltd.
3	Actativ polypropylene (APP) Modified water proof membrane	Ardex endure	Ardex endure
		Bitumat Co Ltd	Bitumat Co Ltd
		Ferrous crete	Ferrous Crete (India) Pvt Ltd
		Hydrotech ltd	Hydrotech ltd
		Pidilite	Pidilite industries
		STP	Shalimar tar products
		Asian Paints - Smart Care	Asian Paints
4	Acrylic emulsion	Asian Tractor Premium emulsion	Asian paint
		Berger (BISM)	Berger Paints
		Dulux (Super Cover)	ICI Dulux
		Nerolac (Beauty Gold)	Nerolac
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
5	Acrylic smooth exterior paint	Apex (ACE)	Asian Paints
		Berger	Berger
		Dulux	ICI duLux
		Nerolac	Nerolac
		Nippon	Nippon

Sl. No	Material Description	Brand	Makes *
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
6	Acrylic textured plaster	Apex Duracast	Asian Paints
		Asian paints	Asian Paints
		Heritage	Heritage Rajkamal Group
		Nerolac	Nerolac
		Spectrum paints	Spectrum paints Ltd.
7	Acrylic exterior Texture	Akzonobel	Akzonobel
		Asian paints	Asian paints
		Berger	Berger paints India ltd
		Ebco	Ebco
		Nerolac	Nerolac paints Ltd.
8	Adhesive	Asian Paints	Asian Paints
		CICO	CICO Industries
		Dunlop	India Tyre & Rubber Co (India) Ltd.
		Finical	Pidilite Industries
		Proofex of Adhesive	FOSROC India
		Sika	Sika India Pvt. Ltd
		Vamorganic	Vamorqanic Ltd.
		AC-Tile Bond-N	Apple Chemie(I) Pvt. Ltd
9	Adhesive for AAC Block/Tiles	Ardex Endura/Gold star	Ardex Endura
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Tile Adhesive Plus	Berger Paints
		Ultra tech	Ultra tech cement ltd
10	Air transfer grills	Cool grills	Cool grills, Pune
		Systemair India	Systemair India Pvt Ltd.
11	Air release valve	Kartar	Kartar valves private Ltd.
		Kirloskar	Kirloskar brothers Ltd.,
		RBM	AFS Ltd

Sl. No	Material Description	Brand	Makes *
12	Aluminium doors/windows sections	Bhoruka	Bhoruka Aluminium Ltd.,
		Hindalco	Hindalco Industries Ltd..
		Hydro	Hydro Extrusion
		INDAL	Indian Aluminium Ltd.,
		Jindal	Jindal Aluminium Ltd,
		Omalco Extrusion	Omalco Extrusion Pvt Ltd.
		Padmavati Exrusion	Padmavath Extrusion Private Ltd.
13	Aluminium system/ Anodised Aluninium fittings for doors/windows	Bhoruka	Bhoruka Aluminium Ltd.,
		Define	Define Overseas Pvt. Ltd.
		Everite	Everite Agencies
		Hardima	Hardima sales corporation
		Jyothi	Jyothi industries
		Kawneer	Kawnear India
		Schueco	Schueco India Pvt. Ltd.,
		Sigma	Sigma Corporation
		CROWN	M/s Crown Industries
		Global	M/s Aluminium Udyog, New Delhi (for non-ferrous metal hardware)
14	Aluminium composite panels	Alpolic	Alpolic
		Alstone	Alstone
		Alstrong	Alstrong
		Alex panel	M/s Alex Panels
		Alucobond	3A composites India Pvt Ltd.
		Aludecor	M/S Aludecor lamination Pvt ltd.
		Eurobond	M/S Euro panel products Pvt ltd.
		Eurobond	Eurobond pvt Ltd.
		Hynadecor	Hynadecor
		Reynobond	Reynobond
		ALUTECH	M/s Alutech Industries, New Delhi

Sl. No	Material Description	Brand	Makes *
		VIRGO	M/s VIRGO Laminates Ltd., Chandigarh
15	Aluminium framework	MFE (MIVAN)	(MIVAN)
		MFS	MFS
		S-form	S-form
16	Anchor/ SS Stone Cladding Clamps/ Dash fasteners	Anchor	Anchor Ltd.
		BOSCH	BOSCH Ltd.
		Canon	Canon
		Fischer	Fischer India
		Helfen	Helfen Gmbh
		Hilti	Hilti India Pvt. Ltd.
		Nutech	Nutech Concrete Products Pvt. Ltd.
		Trixel	Axel India Pvt. Ltd.
		Wurth	Wuerth India Pvt. Ltd.
17	Anti corrosive bit mastic paint	Bergar	Berger paints India Ltd
		Bituminous black	Asian Paints
		Shalimar	Shalimar paints India Ltd.
18	Butt Hinges openable window shutters	Alu Alpha	Alu Alpha India
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Earit Bihari	Earit Bihari India Pvt. Ltd.
		Hafele	Hafele India Pvt. Ltd.
		Helix	Helix India
19	Bamboo Wood Flooring and wall paneling.	AMITEX	AMITEX Enterprises, Delhi.
		Eco green Flooring	Jupiter Traders Bangalore.
		Floor India	Flooring India Company, Panipat, Haryana.
		FLOSTO Tanks	Devi Polymer Pvt. Ltd., Chennai.
		VIVANTA	VIVANTA Enterprises, Mumbai.

Sl. No	Material Description	Brand	Makes *
		EPITOME	M/s Mutha Industries Pvt. Ltd., Mumbai
20	Cement OPC / PPC	Ambuja Cement	Ambuja Cements Ltd.
		ACC	ACC Cements Ltd
		Bharathi	Bharathi Cement Corporation Ltd.
		Birla	Birla Corporation Ltd
		Century Cement	Birla Gold Cement
		Chettinad	Chettinad Cements Corporation Ltd
		Coromandal	India Cements Ltd.
		Dalmia	Dalmia Cement Bharat Ltd.
		Jaypee Cement	Jaypee Cement Ltd
		J.K. Cement	J.K. Cement Pvt. Ltd.
		Konark Cement	Konark Cement
		Maha Cement	Myhome Industries Pvt. Ltd.
		Penna Cement	Penna Cement Industries Ltd.
		Ramco Cement	M/s Ramco Cement ltd.
		Shree Cement	Shree Cement
		Ultra Tech	Ultra Tech Cement Ltd
		Zuari	Zuari Cement Limited
		Nagarjuna Cement	M/s NCL Industries ltd., Secunderabad
		NU VISTA / INFRACEM	M/s NU Vista Ltd. (Formerly M/s Emami Cements Limited)
		SAGAR CEMENTS	M/s SAGAR Cements Ltd., Hyderabad
		Anjani	M/s Anjani port land Cement Ltd., Hyderabad
		JSW	M/s JSW Cement Ltd., Mumbai
21	Cement Concrete Parking Tiles	Dazzle	Dazzle Designer tiles Pvt Ltd
		Eurocon	Eurocon tiles india
		Hindustan tiles	Hindustan tiles, Ranchi Pune

Sl. No	Material Description	Brand	Makes *
		NTC	NTC Parking tiles
		NITCO	NITCO Ltd
		Poddar	Poddar Udyog
		Ultra	Ultra tile private Ltd
		CEMTECH	M/s Cemtech Tiles, Uppal, Hyderabad
		DEC	M/s DEC Industries (P), Ltd.
22	Cement based wall putty	Altek	NCL Alltek & seccold Ltd.
		Ardex Endura	Ardex Endura India Pvt. Ltd.
		Asian paints	Asian paints Ltd
		Berger	Berger
		Birla Wall Care	Birla Cements Ltd.,
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd
		J.K wall putty	J.K. Cement Ltd
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
23	Cement Board	Bison	Bison Group
		Everest	Everest Techno polis
24	Cement Primer	Asian paints	Asian Paints
		Berger	Berger paints India Ltd.
		JK Primaxx	JK Cement Ltd
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
25	Centrifugal Hubless Cast Iron Pipe & Fittings	Kapilansh	Kapilansh Dhattu Udyog (P) Ltd.
		NECO	Jayaswal NECO Ltd.
		Raj (RPMF)	Raj Pattern Makers and Founders Pvt.,Ltd.
		SKF	Singhaliorn Foundary Pvt.,Ltd.
		BIC	M/s Bengal Iron Corporation, Kolkata
26		Electrosteel	Electrosteel castings Ltd.

Sl. No	Material Description	Brand	Makes *
	Centrifugally (Spun) cast Iran	Jindal	Jindal saw Ltd.
		Kesoram	Kesoram Industries ltd.
		Lanco / Sripipes	Electrosteel castings Ltd.
27	Centrifugally Caste (Spun) Iron Soil Pipe	Bengal Iron Corporation	Bengal Iron Corporation
		HEPCO	HEPCO
		Kapilash	Kapilash Dhatu Udyog (P) Ltd.
		Neco	Jayaswal Neco Ltd
		RPMF	Raj Pattern Makers and Founders Pvt. Ltd
		SKF	SKF industries
28	Chemical water proofing system	BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Latex shield 2K/Tank shield PW	Berger Paints Ltd.
		MC- Bauchemie	MC- Bauchemie India Ltd.
		Perma construction Aid	Perma construction Aid Pvt Ltd
		Sika	Sika India
		Smart Care	Asian Paints Ltd.
		Sunanda speciality coating	Sunanda speciality coating Pvt Ltd.
29	Chloropyriphos	DURSBANTCT	DE-NOCIL Ltd.
		HILBAN	Hindustan Insecticides Ltd.
		NOBAN	Chemtts Wets & Flows Pvt. Ltd
		PIRAMID	AMVAC AGRI RASAYAN Pvt. Ltd.
		Premise Agenda	Bayer Ltd.
		Sarups Pest Control	Sarups Pest Control Ltd.
30		BURN	BURN

Sl. No	Material Description	Brand	Makes *
	CI double flange sluice valve	IVS	Indian Valves Private Ltd.
		Kartar	Kartar valves private Ltd.
		Kirloskar	Kirtoskar brothers Ltd.
		Leader	leader valves Ltd
		RBM	AF-S LL
		Zoloto	Zoloto Industries
31	CI double flangad non raturn valve	Fluidtech	Fluidtech
		Kirloskar	Kirloskar Brothers Ltd.
		Zoloto	Zoloto Industries
32	CI Manhole cover	BIC	Bengal iron corporation
		HEPCO	HEPCO India
		Neco	Jayaswal Neco Ltd..
		RPMF	M/s Raj Pattern Makers & Founders Pvt. Ltd.
		SKF	SKF Industries
33	Clamp, Rebar, Chemical fastener	Fischer	Fischer India
		Hilti	Hilti India Pvt.Ltd.
		Wurth	Wuerth
34	C.P.Brass Fittings	CERA	M/s Cera Sanitaryware Ltd.
		ESS Bathsense & Royal	Asian Paints Ltd.
		Hindware	HSIL Ltd.
		Jaquar	Jaquar Group
		Johnson	Prism Johnson Ltd.
		KEROVIT	M/s Kajaria Ceramic Limited
		Kingston	Kingston Brass India Pvt., Ltd.
		MARC	MARC Sanitation Pvt.Ltd.
		Parryware	Parryware Sanitaryware
35	CPVC pipe and fittings	Ashirwad	Ashirwad PVC Pipes
		Astral	Astral Polytechnik Ltd..
		Birla HIL Pipes	HIL Ltd.

Sl. No	Material Description	Brand	Makes *
		Finolex	Finolex Industries Ltd.
		Flowgard	Flowgard
		Prince	Prince Pipes and finttings Ltd,
		Supreme	Supreme Industries Ltd.
		Truflo	HIS Ltd.
		SENTINI	M/s Sentini Flopipes India Pvt. Ltd, Hyderabad
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
		SUDHAKAR	M/s Sudhakar Irrigation Systems Pvt., Ltd.
		AKG	M/s AKG Extrusions Pvt Ltd.,
36	Concealed tower bolt	Alu Alpha	Alu Alpha India
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Ingersolrand	Ingersolrand (India) Ltd.
37	Damp Proof material	ACCO Proof	ACC Cements Ltd
		Asian Paints smart care damp proof	Asian Paints Ltd.
		BASF	BASF India Ltd.
		CICO	CICO Industries
		Dr. Fixit	Pidilite Industries
		Duraseal	Apurva India Pvt. Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc	Fosroc Chemicals India Pvt. Ltd.
		Impermo	Snowcem Paints
		MAPEI	MAPEI Construction Products India P Ltd
		MYK	MYK LATICRETE India Pvt. Ltd.
		PIDILITE	Pidilite Industries
		SIKA	Sika India Pvt. Ltd.

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Sl. No	Material Description	Brand	Makes *
		Weather Coat Roof Guard	Berger Paints India Ltd.
38	DI Fittings	Electro steel	Electro steel
		Jindal	Jindal
		Kapilansh	Kapilansh
		Keshoram	Keshoram
		Tata Ductura	Tata Ductura
39	DI Pipes	Electrosteel	Electrosteel
		Jindal	Jindal
		Keshoram	Keshoram
		Tata Ductura	Tata Ductura
40	Engineered wood floor	Amstrong	Amstrong flooring
		Mikasa Real wood floors	Grean Lam Industries
		New wood	Naw Wood India ltd
		Pergo	Red floor India
		Werner	Dura floor wemer GmbH
41	EPDM Gaskets	Amee Rubber	Amee Rubber industries Pvt Ltd
		Anand	Anand NVI-I products (P) Ltd.,
		Bohra	Bohra rubber Pvt Ltd..
		Hanu	Hanu Industries
		Roop	Roop Polimers Ltd.,
42	EPDM water proofing Membrane	Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Fosroc	Fosroc India
		Pidilite	Pidilite Industries
		Smart care	Asian paints
		STP	Shalimar tar products
43	Epoxy	Ardex	Ardex Endura Ltd.
		Asian paints	Asian paints
		CICO Poxy	CICO Technologies Ltd.

Sl. No	Material Description	Brand	Makes *
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Shalibons	Shalimar tar products
44	Epoxy Paint	Ardex Endura	Ardex Endura India Pvt. Ltd.
		Asian epoxy	Asian Paints
		Berger	Berger paints India Ltd.
		Nerolac	Nerolac
		Shalimar	Shalimar paints India Ltd.
		STP Ltd.	Shalimar Tar Products
		SUNANDA	M/s Sunanda Specialty coatings Pvt. Ltd., Mumbai
45	Epoxy tile joint cements	Ardex Endura	Ardex Endura India Pvt. Ltd
		BASF	BASF India Ltd.
		Ferrous Crete	Ferrous Grete (India) Pvt. Ltd
		Fosroc	Fosroc indd
		Laticrete	MYK Laticrete India
46	Expansion Joint Bitumen board	Dura Board HD100	Supreme Industries
		DURAFILL	Supreme Industries
		STP	Shalimar Tar Products
47	False Ceiling	Aerolite	Andhra Polymers Pvt. Ltd./Aarolite lndustnas Pvt. Ltd.
		Armstrong	Armstrong Wond Indusvies
		Diamond (GRG Ceiling Tiles)	Diamond International Inex Pvt. Ltd.
		Griddsquare	Gridsquare Ceilings
		Gypframe steel	British Gypsum
		Knauf	Knauf Gypsum India Pvt. Ltd.
		Lloyd	Lloyd Insulation (India } Ltd
		Saint Gobain	Saint Gobain Gyproc
		DEC	M/s DEC Industries (P) Ltd., Hyderabad

Sl. No	Material Description	Brand	Makes *
48	False ceilings Members (Perimeter, Ceiling section, intermediates, angles etc.,)	Aerolite	Andhra Polymers Pvt. Ltd./Aarolite Industries Pvt. Ltd
		Anutone	Anutone Accoustics Ltd.
		Armstrong	Amstrong World lndustries
		Gridsquare	Gridsquare Ceilings
		Hunter Dougals	Hunter Dougals
		Knauf	Knauf Gypsum India Pvt. Ltd.
		Saint Gobain Gyproc	Saint Gobain Gyproc India
		USG Boral	USG Boral
		DEC	M/s DEC Industries (P) Ltd., Hyderabad
49	False Floor	Access floor sytem	Access Floor system
		Hewetson	Hewetson India
		Kebao	Inner Space (Distributors)
		PINNACLE	PINNACLE
		Unifloor	Unifloor India Ltd.
		Unitile	Unitile office systems Pvt. Ltd.
50	Fire Rated hardware	Backers FS	Backers FS
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Geze	Geze GMBH
		Ingersolrand	Ingersolrand (India) Ltd.
51	Fire rated glass	Contra Flam / Pyroswiss of Saint Gobain	Saint Gobain India Pvt. Ltd.
		Pilkinton	Pilkinton India
		Promat	Promat Fire & Insulation (P) Ltd.
		Pyran of Schott	Schott glass India Pvt. Ltd.
52	Fire retardant paint	Akzonobel	Dulex Akzonobel Paints
		Asian paints	Asian Paints
		Htlti	Hilti India Pvt. Ltd.

Sl. No	Material Description	Brand	Makes *
		Jotun	Jotun paints
		STPL Ltd.	STPL Ltd.
53	Fire Smoke Seal	Atroflame	Atroflame ltd.
		Hilti	Hilti India Pvt. Ltd.
		Promat	Promat Fire & Insulation (P) Ltd.
		Raven	Raven Global
54	Float Glass,	Saint Gobain	Saint Gobain India Pvt. Ltd.
		Asahi	Asahi India Glass ltd.
		Pilkinton	Pilkinton India
		Modiguard	Gujarat Guardian Ltd.
		Gold Plus	M/s Gold Plus Glass Industry Ltd., New Delhi
55	Float Valve (Ball valve)	Arco	Arco valve Pvt ltd
		IBP	IBP industries
		Leader	Leader valve Ltd
		Prayag	Prayag Polymers Pvt Ltd.
		Zoloto	Zoloto industries
56	Floor spring (For non DSR Items)	Dorma	Donna lndia Pvt Ltd.
		GEZE	GEZE GmbH
		Ingersolrand	lngersolrand India Pvt Ltd
		OZONE	Ozone Hardware.
57	Flushing Cistern	Bath sense	Asian Paints
		CERA	CERA Sanitary ware Ltd.,
		Hindware	HSIL Ltd,
		Jaquar	Jaquar Group
		Kohler	Kohler
		Parryware	ROCA Bath Pvt. Ltd.,
		Somany	Somany
58	Fly ash cement bricks	Concerned CE/SE's will approve based on local availability.	
59		Ambieance	Ambieance

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Sl. No	Material Description	Brand	Makes *
	FRP Door Frames & shutters	Cactus	Cactus
		Duroplast	Duroplast Extrusion pvt ltd.
		Jain doors Pvt. Ltd.	Jain doors Pvt. Ltd.
		Jayna	Jain wood industries
		Meena fibre glass	Meena fibre glass
		Polyline	Polyline
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
60	Friction stay hinges	Earl Bihari	Earl Bihari Pvt. Ltd.
		KINLONG	Kinlong lndustriss
61	FRP covers	Everlast Composites	Everlast Composites Pvt.,Ltd.
		Fibrocast	Fibrocast FRP cover manufacturer
		Thermodrain	Poly products (I) Pvt.,Ltd.
62	Galvalume sheet for roofing, cladding, sandwich panel	Bhushan	Bhushan steel
		Essar	Essar Group
		JSW	JSW
		Llyod metal craft	Llyod Insulation
		Tata Blue Scope	Tata Blue Scope
		BIRLA AEROCON	M/s HIL Ltd.
63	Galvanising	Jenco	Jenco Group
		Karamtara	Karamtara Engineering Pvt.,Ltd.
		Steel liteS	Galvanized Steel Ltd.
64	G I Pipe fittings	HB	HB Industries
		ICS	Sgree samarth Englnears
		Surya	Surya Roshni Ltd.
		TATA	TATA Steel Ltd.,
		Unik	Unik malleable
		Zoloto	Zoloto Industfiea
65	G.I. Pipes	HISSAR	HISSAR
		Jindal	Jindal Pipes Ltd.,

Sl. No	Material Description	Brand	Makes *
		Surya	Surya Roshni Ltd.
		TATA	TATA Steel Ltd.,
		Zenith	Zenith Birla (India) Ltd.
66	Glass door hardware	Classic	Classic Hardware
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Geze	Geze GMBH
		Godrej	Godrej
		Hafele	Hafele India Pvt. Ltd.
		Kich	Kich Architectural Products Ltd.
		Ozone	Ozone Hardware
		Squash	Squash glass doors
67	Glass mosaic tiles	Birla White	Birla Corportion Ltd.
		Bisazza	Bisazza Italy
		Coral	Coral tiles
		Italia	Tie italia mosaic Pvt Ltd
		JK White	JK Cement ltd.
		Mridul	Mridut tiles
		Paljadto	Palladto Mosaics
		PAVIT (Eco Tile)	PAVIT Ceramics Pvt Ltd.
68	Glazed Ceramic tiles (Also wall tiles)	Aparna	Vitero Tiles
		CERA	CERA Sanitaryware Ltd
		Jonson	Prism Jonson Ltd.
		Kajaria	Kajaria Ceramic Ltd.
		NITCO	NITCO Ltd.
		Oasis	M/s Oasis Vitrified Pvt.Ltd.
		Orient Bell	Orient Bell Ltd.
		RAK	RAK Ceramic India Pvt. Ltd.
		Somany	Somany Ceramic Ltd.
		Varmora Granito	Varmora Granite Granite Pvt. Ltd.

Sl. No	Material Description	Brand	Makes *
		Vitero	Vitero Tiles Floor and Wall Tile Manufactures India
		Ultra	Ultra Ltd.
		NAVEEN	M/s Murudeswar Ceramics Ltd., Bangalore
		Orient Bell Ltd	M/s Orient Bell ltd
69	GRC Jali & Tile	Ecovision	Ecovision Industries Pvt ltd.
		Mahesh GRC	Mahesh Prefab Pvt Ltd.
		Terrafirma	Terrafirma GRC Industries
		Unistone	Unistone Interiors Pvt.,Ltd.
		DEC	M/s DEC Industries (P) Ltd.
70	GRP/SMC Panel Tank (New product in the market performance is yet to be established)	AMITEX	AMITEX Enterprises, Delhi.
		FLOSTO Tanks	Devi Polymer Pvt., Ltd., Chennai.
		PIPECO Tanks	PIPECO Tanks
		VIVANTA	VIVANTA Enterprises, Mumbai.
71	Grout	Asian Paints - Smart casre	Asian Paints Pvt. Ltd.
		Ardex	Ardex Endura Adhesive India Pvt. Ltd.
		BASF	BASF India Ltd.
		CICO	CICO Industries
		Dr. Fixit	Pidilite Industries
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc GP2	FOSROC India
		Fugabella, Porcelana	Kerakoll India Pvt. Ltd.
		Home shield super grout	Berger Paints India Limited.
		LATA POXY	MYK LATICRETE India Pvt. LTd.
		MYK Schomburg	MYK Arments Range of products
		SIKA	Sika India Pvt.Ltd.
		Weber	Saint Gobain India Pvt. Ltd.

Sl. No	Material Description	Brand	Makes *
		DEC (Non Shrink grout) (Note: Subject to statutory approvals)	M/s DEC Industries Pvt. Ltd., Hyderabad
		AC-Grout-H1/RR	Apple Chemie (I) Pvt. Ltd
72	Gun metal Valves	Audco	L&T Valves
		Leader	leader valves Ltd ,
		Sant	Sant Valaves Pvt. Ltd.
		Zoloto	Zolota Industries
73	Gypsum Board	Armstrong	Armstrong world Industries
		Gyproc Saint Gobain	Saint Gobain Gyprock India Ltd.
		Lafarge	Lafarge Gypsum India Pvt. Ltd.
		USG Boral board	USG Board India (P) Ltd.
74	Gypsum plaster	Ferrous crete (Ferro-500, Gypsum) Plaster)	Ferrous crete manufacturers
		Gyproc Saint Gobain (Elite 90)	The Saint-Gobain group
		Ultra tech	Ultra Tech Cement Ltd.
75	Heat resistant tiles on terrace	ABC Ceramics	ABC Ceramics
		Endura	Johnson India
		Johnson	Johnson India
		Somany	Somany Ceramic Tiles
		Swastik	Swastik Tiles
		Thermatek	Thermatek
76	High Desity (HDF) Prelaminated board	Armstrong	Armstrong world industries Ltd.
		Green ply	Green Ply Industries Ltd.
		Pergo	Red Floor India
77	High end exterior Texture	Allura/ Graniza range	Asian paints
		Berger	Berger paints India ltd
		SKK Brand	SKK Ltd

Sl. No	Material Description	Brand	Makes *
78	Hydraulic door closers/ Floor springs	Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Everite	Everite agencies
		Godrej	Godrej locking solutioin & systems
		Hardwyn	Hardwyn hardware
		MAGNUM KIT	Mukund Overseas
79	Interlocking Concrete Paver Blocks	Basant Betons	Basant Betons
		BHARAT (NILSON)	Bharat
		Dazzie	Dazzle Designer tiles Pvt Ltd
		Hindustan tiles	Hindustan tiles, Ranchi Pune
		NITCO (ROCKARD)	NITCO
		REGENCY	Regency
		Shree	Shree Bharat Paver blocks
		Ultra	Ultra tile private Ltd
		Vyara Tiles	VYARA Tiles Pvt. Ltd. / Surat
		CEMTECH	M/s Cemtech Tiles, Uppal, Hyderabad
		DEC	M/s DEC Industries (P) Ltd.
		Any alternative tiles as approved by CE/SE based on local availability.	
80	Laminate	Archid ply	Archid ply industries ltd.
		A1 Teak	A1 Teak Products Pvt.,Ltd.
		Century	Centuray laminates
		Decolam	Decolam India Pvt. Ltd.
		Formica	Formica Laminates (India) Pvt. Ltd.
		Green Lam	Green lam Industries Ltd.
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kitmica	Kitply Industries Ltd.
		Merino	Merino laminates
		Royal touche	Royal touche laminates

Sl. No	Material Description	Brand	Makes *
		Sonear	Sonear Laminates
		Sunmica	Sunmica Industries
		DECO-MICA	M/s Deco-Mica Ltd
81	Linoleum sorts flooring	Armstrong	Armstrong flooring India Pvt. Ltd.
		Forbo	Forbo Flooring India Pvt. Ltd.
		Gerflor	Gerflor flooring
82	Locks & Latches	Dorset	Dorset Industries Pvt. Ltd.
		Godrej	Godrej locking solution & systems
		Hafele	Hafele India Pvt. Ltd.
		Harrison	Harrison locks
		Hitech	Globe Locks India
		Helix	Helix India
		Link	Link Locks
		Plaza	Bharat lock House
		Yale	ASSA ABOLOY India (P) Ltd.
83	Masking Tapes	3M	3M
		Roop	Roop Polymer Ltd.
		Sun	Sun
		Wonder polymer	Wonder Tape Industries
84	Melamine Polish	Asian paints	Asian paints
		Melamine Gold Wudfin	Pidilite industries
		Polycure	Polycure Malaysia
85	Mechanical coupler for reinforcement	Dextra	Dextra India Pvt Ltd.
		Sanfield	Sanfield India Ltd.
		Alchemica	Alchemica Ltd.
		Ardex Endura	Ardex Endura Ltd.
		Asian paints	Smart care water proofing products
86	Membarane water proofing system	BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.

Sl. No	Material Description	Brand	Makes *
		Hydro tech	Hydro tech Ltd.
		MYK Schomburg	MYK Arments range of products
		STP Ltd	Shalimar tar products
		Texsa	Texsa India Ltd.
		KRYTON	M/s Kryton Buildmat Co. Pvt. Ltd. Gurugram, Haryana
		SUNANDA	M/s Sunanda Specialty coatings Pvt. Ltd., Mumbai
87	Metalic / Steel Fire Door	Godrej	Godrej Security Solutions
		Kenwood	Kenwood Ply & Board
		MPP Schodders	MPP Technology Pvt. Ltd.
		NAVAIR	NAVAIR International Pvt. Ltd.
		Promot	Promot fire & Insulation (P) Ltd.
		Shakthi Hormann	Shakthi Hormann Pvt. Ltd.
		Signumfire Protection	Signumfire Protection pvt. Ltd.
		Sukri	Sukri Fire Doors Pvt. Ltd.
		ASES (Agni suraksha)	M/s ASES Security Pvt. Ltd., Ghaziabad)
		Ahlada	M/s Ahlada Engineers Limited
		DEC	M/s DEC Industries Pvt. Ltd.
88	Metal Deck Sheet	Essar	Essar Steel Ltd.
		JSW	JSW Structural Metal Decking Ltd
		SAIL	SAIL
		TATA	TATA steel
89	Mild Steel Butt Hinges/ Piano hinges	Amit	Lovely metal Industries Pvt. Ltd.
		Deepak	Deepak
		Garg	D.P. Garg & Company
		Jolly	Jolly Engineering works
		Jyoti	Jyoti Architectural Pvt. Ltd.
		Saswat	Saswat

Sl. No	Material Description	Brand	Makes *
		Supreme	Supreme Industries
		Swift	Swift screws
90	Mirror	AIS Mirror	Asahi India Glass Ltd.
		Atul	Autl Glass Industries Ltd.
		Modi Guard	Gujarat Guardian Ltd
		Saint Gobain	Saint Gobain Glass India Ltd.,
		Gold Plus	M/s Gold Plus Glass Industry Ltd., New Delhi
91	Modular kitchen/ wardrobes/Hardware and Accessories	Evoke	Evoke
		Godrej	Godrej & Boyce co
		Sleek	Asian Paints
		Spacewood	Spacewood
92	M.S. Pipe, Tubes	Apollo	Appolo Tubes Ltd.
		JINDAL	JSW
		Kalinga	Kalinga Tubes Ltd.
		SAIL	SAIL
		Surya	Surya Roshi Ltd.
		TISCO	TATA STEEL
93	Multy walled polycarbonate roofing sheets	Danapalon	Danapal Light architecture
		Lexan GE	GE lexan
94	Non Asbestos Sheets	Everest	Everest Industries
		HIL	HIL Ltd.
		RAMCO	RAMCO Industries Ltd.
		Everest (Non-Asbestos Fibre Cement Board - Different Grade & Type)	M/s Everest Industries Ltd.
95	Non Metalic Fire door	Godrej	Godrej Security Solutions
		Kenwood	Kenwood Ply & Board

CONTR. AE(C) / RMV

Sl. No	Material Description	Brand	Makes *
		NAVAIR	NAVAIR International Pvt. Ltd.
		Promot	Promat Fire & Insulation (P) Ltd.
96	Non Metallic floor surface hardness	BASF	BASF India Ltd
		CICo	CICO Technologies ltd
		Fosroc	Fosroc India
		Hardonite	Hardonite
		Ironite	Ironite
		Pidilite	Pidilite Industries ltd
		Sika	Sika India
97	Oil Bound Distemper	Berger (BISOM)	Berger Paints
		Dulux (Maxilite)	Dulux
		MG Polyplast	Nerolac
		Tractor Aqalock	Asian Paint
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
98	Overdeck insulation with extruded polystyrene board (XPS board)	Dowcorning	Dowcorning
		Owen scorning	Owen scorning
		Supreme Petrochemical Ltd.	Supreme Petrochemical Ltd.
99	Panel Doors/Wire mesh Door shutters /Fire proof doors	Jain doors	Jain Door Pvt. Ltd.
		NCL	Nagarjuna
		ASES (Agni suraksha)	M/s ASES Security Pvt. Ltd., Ghaziabad)
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
100	PE-AL-PE Composite Pipes	Kitec	Kitec Industries (India) Pvt. Ltd.
101	Pink primer	Berger	Berger Paints
		Dulex	ICI dutax
		Nerolac	Nerolac Kansia Nerolac Pains Ltd.
		Nippon	Nippon

Sl. No	Material Description	Brand	Makes *
		Wood primer	Asian paint
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
102	Plasticiser & Super Plasticiser	BASF	BASF India Ltd.
		Chryso-HP/ Delta / Optima	Chryso India Pvt. Ltd.
		CICO	CICO Industries
		Contrament, Power flow	MC Bauchemie (India) Pvt. Ltd.
		Conplast SP 430	FOSROC India
		MYK Schomburg	MYK Arments Range of products
		Plastiment, Sikament	Sika India Pvt. Ltd.
		Smart Care Techno Plast/Smart care maximo plast.	Asian Paints Limited
		Sunanda Chemicals	Sunanda Chemicals Ltd.
		DEC (Admixure(PC, SNF) (Note: Subject to statutory approvals)	M/s DEC Industries Pvt. Ltd., Hyderabad
		VISCOFLUX 2203/2208	Apple Chemie (I) Pvt Ltd
103	Plastic Encapsulated Foot Rest	Accurate Buildcon	Accurate Buildcon company
		KGM	KGM Exports
		KK India	KK Manhole and gratings Co Pvt Ltd.
104	Play Equipments	Koochie Play	Koochie Play systems Pvt ltd.
		Play world systems	Play world systems India.
105	Post tensioning System	BBR	BBR (India) Pvt. Ltd.
		CRUX	Crux Processing systems Pvt. Ltd.
		Ultracon	Ultracon Structural Systems Pvt. Ltd.
		VSL	VSL India pvt. Ltd.

Sl. No	Material Description	Brand	Makes *
106	Poly carbonate Sheet	Alcox	Hindeggan Alcox Ltd.
		Danapalan	Danapal Light architecture
		GE Lexon	GE Silicones
		MG Polyplast	MG Polyplast
		DPI – Flux	M/s DPI Day lighting pvt. Ltd. Gurugram, Haryana
107	Polycarbonate Convex mirrors, Rubbarised road hump	Unique safety solutions	Unique safety solutions
108	Poly sulphide sealant	Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Smart care sealant
		MYK Schomburg	MYK Arments range of products
		Pidilite	Pidilite Industries
		STP Ltd	Shalimar tar products
		Techseal	Choksey chemical Pvt ltd.
		Tuff seal	Bondit construction chemical
		AC-Poly seal	Apple Chemie (I) Pvt. Ltd
109	Polyethylene backer rod	Supreme	Supreme Industries
110	Polyurea Ultra	BASF	BASF
		Ferrous	Ferrous Crete (India) Pvt Ltd
		Pidilite	Pidilite Industries
		SIKA	SIKA India
		Smart care	Asian paints
111	Powder coating	Akzonoble	Akzonoble Coating Ltd.
		Berger	Berger Paints India Ltd.
		Jotun	Jotun Group
112	Powder & PVDF Processer	Aura International	Aura International Pvt.,Ltd.
		MJ coaters	MJ Coaters Pvt.,Ltd.

Sl. No	Material Description	Brand	Makes *
		SP Coating	SP Architectural Coating Pvt.,Ltd.
113	Prelaminated particle board Exterior Grade	Archid ply	Archid Ply Industries Ltd.
		Associate	Associate Décor Limited
		Centuary	Centuary MDF
		Ecoboard	Ecoboard Industries Ltd.
		Green Lam	Green lam Industries Ltd.
		Kitlam	Kit Ply Industries Ltd.
		Merino	Marino laminates
		Novapan	GVK Novapan Industries Pvt. Ltd.
		TESA Action Co.	TESA Action Co.
		GREEN PANEL	M/s Green Panel Industries Ltd.
		Bison Panel	M/s NCL Industries ltd., (Board division), Secunderabad
114	Premium Acrylic smooth exterior Paint with silicon additives	Berger	Berger
		Dulux	ICI dulux
		Nerolac	Nerolac
		ULTIMA	Asian paint
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
115	PTMT/PVC water supply sanitary fittings, bibcocks, pillar cock Angle valve,	PEARL	Precision Products
		Prayag	Prayag Polymers (P) Ltd
		Supreme	Supreme industries
116	PT Strands	DP Wires	DP Wires Ltd.
		TATA wiron	TATA STEEL LTD.
		Usha Martin	Usha Martin Ltd.
117	PVC Doors and Frames	Ambieance	Ambieance
		Accucel	Accura Polytech Pvt. Ltd.
		Duroplast	Duroplast extrusion Pvt. Ltd.
		Encraft	Encraft India Pvt. Ltd.

Sl. No	Material Description	Brand	Makes *
		Plastic Wood	Plastic Wood
		Polyline	Polyline extrusion Pvt. Ltd.
		Rajshri	Rajshri Productions Pvt. Ltd.
		Sintex	Sintex Plastic technology Ltd.
		VEKA	M/s NCL Veka Ltd.
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
		RAJSHRI	M/s Rajshri Plastiwood, Pithampur, M.P.
		GIZA	M/s Navratan Soeciality Chemicals LLT., Ahmedabad – 380051, Gujarat
		KAKA	M/s Kaka Industries Limited
118	PVC / HDPE water storage tanks	Sintex	Sintex Plastic technology Ltd.
		Supreme	Supreme Industries Ltd.
		Vectus	Vectus Industries Ltd.
		SUDHAKAR	M/s Sudhakar irrigation system (P) Ltd., Hyderabad
119	PVC Perforated Pipes	Akash Enterprises	Akash Enterprises
		Rex Polyextrusion	Rex Polyextrusion ltd.
		Supreme	Supreme industries.
		Zenplas Pipes	Zenplas Pipes Pvt ltd.
120	PVC flooring	Armstrong	Armstrong world Industries
		Ger flor	Ger flor flooring
		LG Hausys	LG Hausys
121	PVDC coating	Akzonoble	Akzonoble Coating Ltd.
		Valspar	Valspar India Coating Corporation Ltd.
122	PU Coating (UV resistant Liquid Applied coating)	BASF	BASF
		Fosroc	Fosroc India
		Pidilite	Pidilite industries
		PU Roof Koat	Berger Paints Ltd

Sl. No	Material Description	Brand	Makes *
		SIKA	SIKA India
		Smart care	Asian paints
123	PU Enamel Metalic Paints on MS Structure & Epoxy paints (Premium Quality)	Akzonobel	Akzonobel
		Asian paints	Asian paints
		Berger	Berger paints India Ltd.
		MRF	MRF paints
		SKK	SKK ltd
		SUNANDA	M/s Sunanda Specialty coatings Pvt. Ltd., Mumbai
124	Raised / Cavity flooring	Access Floor systems	Access Floor Systems
		Tate	Tate
		Uni floor	Uni floor India
		Unitile	Unitile India
		Zt floor	Zt floor Pvt.,Ltd
125	RCC Pipes	Indian Hume Pipes	Indian Hume Pipe Ltd.,
		Jain & Co	Jain spun pipes Co.,
		Lakahmi Sood & Sood	Lakshmi Sood & Sood Pipa Co.
		Madurai spun pipe	Madura spun pipe company
		Vishnu	Vishnu Spun Pipes.
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
126	Ready mix cement plaster	Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Gyproc plasters	Saint Gobain Gyproc India
		Ramco super plaster melamine	Ramco super plaster melamine
		Read Plast	Ultratech cements Ltd
		Ultra tech	Ultra tech Cement Ltd
127	Red Oxide Zinc Chromate primer	Berger	Berger Paints
		Dulex	ICI dulex
		High performance yellow metal primer	Asian Paint

Sl. No	Material Description	Brand	Makes *
		Nerolac	Nerolac
		Nippon	Nippon
		SURFA	M/s Surfa Coats (India) Pvt., Ltd., Bangalore
128	Reflective glass	Asahi	Asahi India Glass ltd.
		Glaverbel	Glaverbel India
		Modifloat	Gujarat Guardian Ltd.
		Pilkinton	Pilkinton India
		Saint Gobain	Saint Gobain India Pvt. Ltd.
		Gold Plus	M/s Gold Plus Glass Industry Ltd., New Delhi
		Guardian Sun Guard	M/s Gujarat Guardian Ltd., Gujarat
		GUARDIAN SUNGUARD	M/s Gujarat Guardian Ltd.
129	RMC plants (Ready Mix Concrete) (Engineer-in-charge reserves right to modify or add any other plant)	ACC	ACC Cements Ltd
		A B Dinesh	A B Dinesh Concrete India Pvt., Ltd.
		Aparna	Aparna Ready Mix concrete
		Lafarge	Lafarge India Pvt. Ltd.
		NUVOCO	Nuvoco Vistas Corporation Ltd.
		RB Ready Mix	RB Ready Mix
		RDC	RDC Concrete (India) Pvt.Ltd.
		RMC (India)	RMC (India) Pvt. Ltd.
		Ultra Tech	Ultra Tech Cement Ltd
		Sarvani Industries Pvt. Ltd.,	M/s Sarvani Industries Pvt. Ltd., Guntur Plants at Autonagar, Gajuwaka & Atchutapuram @ Visakhapatnam. Plants at at – Ankireddy Palem, Kolanukonda @ Guntur
		JK Concrete	M/s JK Ready Mix concrete, Visakhapatnam
		SCS Infra Concrete	M/s SCS Infrastructures Pvt. Ltd.,

Sl. No	Material Description	Brand	Makes *
		SVK Ready Mix	M/s Sai Venkata Krishna Reddy mix Industry, Guntur
		VNS Ready Mix	VNS READY MIX
		Icon Ready Mix	Icon Infra Concrete Private Limited, Tadepalli, Guntur
130	Rockwool/Glass wool insulation	Liyod Insulation	Liyod Insulation ltd.
		Supreme	Supreme Industries ltd.
		Twiga fiber	Twiga fiber glass ltd
131	Sandwich PUF panelled roofing sheets	Advent	Advent concrete vision
		BASF	BASF
		Danapalan	Danapal Light architecture
		Essar	Essar Group.
		Fosroc	Fosroc
		GE Plastic	GE Silicones
		GE Plastic	GE Silicones
		JINDAL MECTEC/ JINDAL	Mectec Pvt Ltd
		LEXAN	LEXAN Ltd
		Liyod Insulation	Liyod Insulation (India) ltd
		Lloyd Insulation	Lloyd insulation (India) Ltd
		Pidilite	Pidilite Industries ltd
		Smart care	Asian paints
		Supreme	Supreme ltd
132	Sensor based Auto flush systems	AOS System	AOS System
		Grohe	Grohe
		Hindware	HSIL Ltd
		Jaquar	Jaquar Group
		Kochier	Kochier
		Parryware	Parryware Sanitary ware
		TOTO	TOTO ltd.

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Sl. No	Material Description	Brand	Makes *
133	SFRC Cover and grating	Nu-TEC	Nu-Tech concrete products (P) Lld,.
		KK	KK Manhole and gratings Co Pvt Ltd.,
		Kutty	Kutty Industries
134	Shear Stud/ Connector	KOCO	KOSTER & CO
135	Silicon coating	BASF	BASF India Ltd.
		Dow Corning	Dow corning Indd
		GE	GE Silicones
		Wacker	Wacker silicones
136	Silicon Gaskets	Sree Geurev	Sree Gaurav Rubber products
137	Solar studs/ Median markers	3M	3M Science
		Avery Dennison	Avery Donnison India Pvt Ltd.
		Nikkalite	Nippon carbide Industires (USA)
138	Spider patch fittings for structural glazing	Dorma	Dormakaba
		hafele	Hafele Ltd.
		Kich	Kich india
		Ozone	Ozone Ltd.
		Sevax	Saint Gobain Glass India ltd
139	Spray applied Readymade plaster/ Gysum plaster	Buildon	Buildon
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Gyproc cute 100	Gyproc India.
		Ultratech	Ultratech cement ltd.
140	Spun cast iron fittings	Neco	JayaSwal Neco Ltd
		Kartar	Kartar valves private Ltd. ,
		Electrosteel	Electrosteel
		Kapilansh Centrifugal	Kapilansh Dhatu Udyoo (P)Ltd.
		SKF brand	SINGHALIRON FOUNOARY Pvt. Ltd.
141		Jagannath	Sri Jaqannath iron Foundry Pvt. Ltd

CONTR. AE(C) / RMV

Sl. No	Material Description	Brand	Makes *
	Spun cast iron covers & gratings	Kapilansh Centrifugal	Kapilansh Dhatu Udyoo{P)Ltd.
		Neco	Jayaswal Neco Ltd
		SKF brand	SINGHALIRON FOUNOARY Pvt. Ltd,,
142	Stainless Steel	Ark Product Pvt. Ltd.	Ark Product Pvt. Ltd.
		Connect	Connect Ltd.
		Jindal	JSW
		KINGSTON	KINGSTON
		Salem	SAIL
		SAIL	SAIL
		DEC (Stainless steel pipes*) *with emboss /mark "RM by JINDAL"	M/s DEC Industries Pvt., Ltd, Hyderabad
143	Stainless Steel screws	Alloy	Alloy Ltd.
		Atul	Atul fasteners Ltd.
		GKW	GKW Limited
		Helix	Helix India
		Kundan	Kundan Industries Ltd.
		Nettlefold	Nettlefold Screws
		Pooja	Pooja Steel Corporation
144	Stainless steel Butt hinges	Dorma	Dorma India Pvt. Ltd.
		Helix	Helix India
		Prayag	Prayag Polymers (P) Ltd.
		Ozone	Ozone Hardware
		DEC	M/s DEC Industries (P) Ltd., Hyderabad
		Global	M/s Aluminium Udyog
145	Stainless steel friction hinges	Earl Bihari	Earl Bihari India Pvt. Ltd.
		EBCO	EBCO
		Hetich	Hetich India

Sl. No	Material Description	Brand	Makes *
		Haffle	Haffle India Pvt. Ltd.
		ROTO	ROTO Frank Asia
		Securistyle	Securityle India Pvt. Ltd.
146	Stainless steel Bolts, washers, nuts	Atul	Atul fasterners Ltd.
		Hilti	Hilti India Pvt. Ltd.
		Kundan	Kundan Industries Ltd.
		Pooja	Pooja Steel Corporation
		DEC	M/s DEC Industries (P) Ltd., Hyderabad
		GIZA	M/s Navratan Specialty, Chemicals LLT., Ahmedabad – 380051, Gujarat
147	Stainless steel pressure plate screws	Atul	Atul fasterners Ltd.
		Dorset	Dorset Industries Pvt.Ltd.
		Kundan	Kundan Industries Ltd.
		Pooja	Pooja Steel Corporation
148	Stainless Steel Kitchen sink	CERA	M/s Cera Sanitaryware Ltd.
		Diamond	Pheonix Appliances Pvt. Ltd.
		Franke	Franke India Ltd.
		Futura	Futura Kichen Sinks India Pvt. Ltd.
		Hindware	HSIL Ltd
		Jhonson	Prision Jhonson Ltd.,
		Jindal	Centuary polytech
		Joyna	Joyna
		Navkar	Shri Navkar Metals Ltd
		Nilkanth	Nilkant
		Nirali	Jyoti (India) Matel Industries Pvt Ltd
		Silver Shine	Blue stone sanitary Industries Pvt. Ltd.
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
149		Accucel	Accura polytech Pvt ltd.

Sl. No	Material Description	Brand	Makes *
	Steel Windows/ Pressed steel frames	Madhu industries	Madhu industries, San Harvic, NCL
		NCL	NCL Industries
		San Harvic	San Harvic
		DEC(CRCA Door Frames)	M/s DEC Industries Pvt. Ltd., Hyderabad
150	Structural Steel	APL	Apollo Tubes Ltd
		JSPL	JSPL
		JSW	JSW
		SAIL	SAIL
		TISCO	TATA STEEL
		VIZAG	RINL
151	Structural sealant	Asian paints	Smart care sealant
		BASF	BASF India Ltd.
		Dow corning	Dow corning india
		Fosroc	Fosroc India
		GE	GE silicones
		STP Ltd.	Shalimar tar products
		Wacker	Wacker silicones
152	Synthetic enamel Paint	Berger	Berger Paints
		Dulex	ICI dulex Ltd
		Premium gloss enamel	Asian paint Ltd
		Nerolac	Nerolac Paints Ltd
		Nippon	Nippon Paint India Ltd.
		SURFA	M/s Surfa Coats (India) Pvt. Ltd., Bangalore
153	Synthetic Carpet tiles	Hollitex	Hoilitex carper tilas
		Standard Carpets	Standard Carpets
		TOLI	TOLI Corporation
155	Synthetic Sports Flooring	Armstrong	Armstrong flooring
		Gerflor	RMG Polyvinyl India Ltd.

Sl. No	Material Description	Brand	Makes *
		LG Wondorfloor	LG Hausys India
156	SWR PVC Pipes & fittings	Astral	Astral poiytechnik Ltd.
		Finolex	Finolex Industries Ltd .
		Flowgard	Ashirwad PVC Pipes
		Nandi	Nandi pipes Pvt., Ltd.
		Prince	Prince Pipes and fittings
		Sudhakar	Sudhakar PVC Pipes
		Supreme	Supreme Industries Ltd
		SENTINI	M/s Sentini Flopipes India Pvt. Ltd., Hyderabad
		Brila HIL Pipes	M/s HIL Ltd.
		AKG	M/s AKG Extrusion Pvt. Ltd.,
157	Tempered reflective/ clear glass	Asahi	Asahi India Glass ltd.
		FUSO	FUSO Glass India Pvt. Ltd.
		Gurind	Gurind India
		Imapct Safety	Impact Safety glass works Pvt. Ltd.
		Modiguard	Gujarat Guardian Ltd.
		Pilkington	Pilkington India Pvt. Ltd.
		Saint Gobain	Saint Gobain India Pvt. Ltd.
		Gold Plus	M/s Gold Plus Glass Industry Ltd., New Delhi
158	Thermal Insulation treatment	Asian	Asian Paints Ltd.
		Elastospray	BASF
		Pidilite	Pidilite Industries
		Rock India Pvt. Ltd	Rock India Pvt. Ltd
		Weather Kool & Seal	Berger Paints India Ltd.
159	TMT Bars	JSW	JSW Steel Ltd.
		SAIL	Steel Authority of India Ltd.
		TISCO	TATA STEEL LTD.
		VIZAG	Rastriya Inspat Nigam Ltd.

CONTR. AE(C) / RMV

Sl. No	Material Description	Brand	Makes *
		JSPL	Jindal Steel & Power Ltd.,
160	UPVC Pipes and fittings	AKG	M/s AKG Extrusions Pvt. Ltd.,
		Astral	Astral polytechnik Ltd.
		Ashirwad	Aahirwad PVC Pipes
		Finolex	Finales Industries Ltd.
		KSR	KSR
		Prepoly	Premier PVC Industry
		Prince	Pnnce pipes and fittings Ltd.
		Supreme	Supeme industries Ltd.
		SENTINI	M/s Sentini Flopipes India Pvt. Ltd, Hyderabad
		DEC (UGD pipes (IS 15328)	M/s DEC Industries Pvt. Ltd., Hyderabad
		Birla HIL Pipes	M/s HIL Ltd.
		SUDHAKAR	M/s Sudhakar Polymers Pvt. Ltd.
161	UPVC doors, door frames and windows	Aluplast	Alu Alpha India
		Duroplast	Duro Plast Extrusion Pvt. Ltd.
		Encraft	Encraft India Pvt. Ltd.
		Fenesta	Fenesta DCM Shriman
		Komarlings	Profile India Window Technology Pvt. Ltd.
		LG	LG India Pvt. Ltd.
		MARCOLINI	M/s Mathura Poly pack Pvt, Ltd.
		Prominance	M/s Prominance Window Systems
		Rehau	Rehau Unlimited Polymer Solutions
		Sintex	Sintex Plastic technology Ltd.
		Venster/ OKOTECH	Aparna Enterprises limited
		VEKA	M/s NCL Veka Ltd.
		Plast One	M/s Plast One UPVC Profiles Pvt., Ltd., Secunderabad

Sl. No	Material Description	Brand	Makes *
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
		RAJSHRI	M/s Rajshri Plastiwood, Pithampur, M.P.
		SIMTA ASTRIX	M/s Simta Clear Coat Pvt. Ltd., Hyderabad
162	UPVC Hardware	COAR	COAR
		DNV	DNV Global Pvt.,ltd.
		HOPPE	HOPPE
		PULSE	LGF SYSMAC (India) Pvt.,Ltd.
163	Vitreous Commodes/ Washbasin	BATHSENSE	Asian paints(Bath division)
		CERA	CERA Sanitaryware Ltd.,
		Hindware	HSIL Ltd.
		Jaquar	Jaquar Group
		Kerovit	M/s Kajaria Ceramic limited
		Kohler	Kohler world Wide
		Parryware	ROCA Bath Pvt. Ltd.,
		Roca	ROCA Bath room products
		RAK Sanitaryware	RAK Sanitaryware
		Somany	Somany Ceramic Ltd.
164	Vitrified paving tiles	Durostone	Ever stone International
		Johnson	Johnson India
		Kajaria	Kajaria Ceramics
		PAVIT	PAVIT Ceramics Pvt. Ltd.
		CERA	M/s CERA sanitary ware Ltd.
		Johnson	Prism Johnson Ltd.
		Kajaria	Kajaria Ceramic Ltd.
		Marbito	Marito tiles
		NITCO	NITCO Ltd.
		Oasis	M/s Oasis Vitrified Pvt.Ltd.

Sl. No	Material Description	Brand	Makes *
		RAK	RAK Ceramic India Pvt. Ltd.
		Restile	Restile Ceramic Ltd.
		Somany	Somany Ceramic Ltd.
		Varmora Granito	Varmora Granite Pvt. Ltd.
		Vitero	Aparna Enterprises limited
		NAVEEN	M/s Murudeswar Ceramics Ltd., Bangalore
166	Water Proof Plywood, Commercial ply, Fire retardant ply and Block boards / Shuttering ply	Archidply	Archid Ply Industries Ltd.
		A1 Teak	A1 teak Industries Pvt. Ltd.
		Century ply	Century Flush Doors
		Duroply	Duro Ply Industries Ltd.
		Duroplast	Duroplast
		Dura sleek	Dura sleek
		Grassim ply	Shree Ram Industries
		Green panel	Green panel Industries Lid.
		Green Ply	Green Ply Industries Ltd.
		Jayna ply	Jain Wood Industries
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kitply	Kitply Industries Ltd.
		Polyline	Polyline
		AAMODA	M/s Jai Dayal Plywood Pvt. Ltd., Hyderabad
		BLACK COBRA	M/s Punjab Plywood Industries, Yamunanagr, Haryana
		Kalpataru	M/s Shree Yantra Panels Pvt. Ltd., (Sister concern of M/s V.K. Patel&Co.)
167	Water Proof cement paint	Asian exterior wall primer	Asian paint
		Berger	Bergar Paints
		Cem Colour	Snowcem Paints

Sl. No	Material Description	Brand	Makes *
		ICI DULUX	ICI DULUX
		Surfa	Surfacoats (India) Pvt. Ltd.
168	Water supply Valves	ARCO	Arco valves Pvt. Ltd ,
		leader	leader valves Ltd ,
		Nanda	Nanda Miller company
		Zoloto	Zoloto Industries
169	Welding rods	Advani	Advani oerlikon Ltd.
		ESAB	ESAB India Pvt. Ltd.
		ESS, BATHSENSE & Premium Range : Royale	Asian Paints (Bath Division)
		HlNDWare	HSIL Ltd.
		Jaquar	Jaquar Group
170	Water supply fixtures like bibcock, Shower panels	Johnson	Prism Jhonson Ltd
		Kerovit	M/s Kajaria Ceramic limited
		Kingston	Kingston brass India
		MARC	MARK Showers
		Metro	Metro sanitations Pvt. Ltd.,
		Parryware	ROCO bath roam products Pvt. Ltd,
		Prayag	Prayag polymers Pvt Ltd ,
		Seiko	Seiko Sanitations
		Watarman	Kewal brothers
171	Water proofing Compound	Accoproof	ACC cement Ltd.
		Alchemica	Alchemica Ltd.
		Ardex Endura	Ardex Endura (India) Ltd.
		Asian Paints	Asian Paints
		CICO	CICO Technologies Ltd.
		Cement Mix Plus/Advanced Latex Plus	Berger Paints India Ltd.
		Dr. Fixit	Pidilite industries

Sl. No	Material Description	Brand	Makes *
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Impermo	Snoweem paints
		MYK Schomburg	MYK Schomburg range of products
		Penetron	Penetron India Pvt Ltd.
		Shaliplast LW+	STP Ltd
		Sika	Sika India
		KRYTON	M/s Kryton Buildmat Co. Pvt. Ltd. Gurugram, Haryana
		DEC (SBR Latex) (Note: Subject to statutory approvals)	M/s DEC Industries Pvt. Ltd., Hyderabad
		SUNANDA	M/s Sunanda Specialty coatings Pvt. Ltd., Mumbai
172	Water stops	Ardex Endura	Ardex Endura Ltd.
		BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Hydroswell	Sika India
		Hydrotite	Sika India
		KRYTON	M/s Kryton Buildmat Co. Pvt. Ltd. Gurugram, Haryana
171	Water proofing materials/ GP Grouts	Asian paints	Smart care SC GP grout grey
		BASF	BASF
		Care	Care
		Ferrous crete	Ferrous Crete (India) Pvt Ltd
		Home shield Super grout	Berger Paints Ltd.
		Pidilite	Pidilite Industries
		SIKA	SIKA India

Sl. No	Material Description	Brand	Makes *
		KRYTON	M/s Kryton Buildmat Co. Pvt. Ltd. Gurugram, Haryana
		DEC (Non-Shrink grout) (Note: Subject to statutory approvals)	M/s DEC Industries Pvt. Ltd., Hyderabad
173	Weather silicon make and grade	Down corning	Down corning india
		Momentive (GE)	GE silicones
174	White Cement	Birla	Birla Corporation Ltd.
		J.K.	JK Cement Ltd.
		Travancore	Travancore Cements Ltd.
175	Wood Polymer composite material for door frames and shutters, plain/pre laminated boards for wall linings etc.	Alstone	Alstone Industries Pvt., Ltd., Jaipur, Rajastan.
		Century	M/s Century Ply Boards (I) Limited
		Ecoste	Ecoste wood polymer composite, Delhi.
		Echon	Kumar Arch Tech, Pvt.Ltd., Rajastan.
		Green ply	Greenply Industries Limited
		Qute	Qute Extractions Pvt.Ltd., Chennai.
		Rajasree	Rajeswari Products Pvt.,Ltd., Madya Pradesh.
176	Wooden Flush door shutters	Archiply	Archiply
		A1 Teak	A1 Teak Products Ltd.
		Century	Century Flush Doors
		Duro Flushdoors	Dura Ply industries Ltd.
		Greenlam	Greenlam Ply Industries Ltd.
		Indian Timber Products	Indian Timber Products
		Jain doors Pvt.Ltd.	Jain doors Pvt.Ltd.

Sl. No	Material Description	Brand	Makes *
		Jayna Flush Doors	Jain Wood Industries
		Kailash	Kailash Hi Tech Timber Industries India pvt. Ltd.
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kenwood	Kenwood Ply & Board
		Kitply	Kitply Industries Ltd.
		Mayur	Mayur Ply industries
		MP Ply wood products	MP Wood products
		National plywood	National plywood
		Raavella door	Raavella Industries (P) Ltd.
		Shakthi	Shree Shakthi Modern Flush doors
		Swatic ply	Swatic ply
		Vidya ply	Vidya ply
		AAMODA	M/s Jai Dayal Plywood Pvt. Ltd., Hyderabad
		BLACK COBRA	M/s Punjab Plywood Industries, Yamunanagar, Haryana
		DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
		NAGARJUNA	M/s Nagarjuna Doors, W.G.
		Kalpataru	M/s V.K. Patel&Co.)
177	Precast Concrete Manhole covers and Frame	DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
178	HD PE pipes for water supply	DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
179	Pre Painted Galvanized iron / Steel Doors & Windows	DEC	M/s DEC Industries Pvt. Ltd., Hyderabad
		APL APOLLO CHAUKHAT	M/s APL Appllo Tubes Ltd.
180	WPC Doors	RAJSHRI	M/s Rajshri Plastiwood, Pithampur, M.P.

CONTR. AE(C) / RMV

Sl. No	Material Description	Brand	Makes *
		DEC	M/s DEC Industries (P) Ltd., Hyderabad
		GIZA	M/s Navratan Specialty, Chemicals LLT., Ahmedabad – 380051, Gujarat
181	WPC Frames	DEC	M/s DEC Industries (P) Ltd., Hyderabad
		GIZA	M/s Navratan Specialty, Chemicals LLT., Ahmedabad – 380051, Gujarat
182	CP Bath Fittings & Accessories	Ess "ap Royale" and Bathsense	M/s Asian Limited (Bath Division)
		CORONET	M/s Mohan Metal Industries
183	IoT based building Management System (S.T. Open Protocols)	WIS Spaces	M/s Wenalytics IoT Solutions Pvt. Ltd.
184	CC Kerb Stones	CEMTECH	M/s Cemtech Tiles
		DEC	M/s DEC Industries (P) Ltd.
185	HPL Sheets / Laminates	ALUTECH	M/s Alutech Industries, New Delhi
		VIRGO	M/s Virgo Laminates Ltd., Chandigarh
186	Stainless Steel Door Handles	DEC	M/s DEC Industries (P) Ltd., Hyderabad
187	Stainless Steel Aldrop	DEC	M/s DEC Industries (P) Ltd., Hyderabad
188	Tower Bolts	Global	M/s Aluminium Udyog
189	Door Handles	Global	M/s Aluminium Udyog
	New Products		
190	Super Plasticizers (Retarders)	AC-MENT -BV 430 A3	Apple Chemie (I) Pvt Ltd.
191	APCP Based High performance Hyper Plasticizers for self-compacting concrete with Higher slump Retention	Visco Flux 5507/6073	Apple Chemie (I) Pvt Ltd.

CONTR. AE(C) / RMV

Sl. No	Material Description	Brand	Makes *
192	Pentrative BI-Polar Corrosion Inhibiting Admixture	AC-Corroguard	Apple Chemie (I) Pvt Ltd.
193	Micro Silica Additives (Pozzolanic Material)	AC- Microsil-Si9+	Apple Chemie (I) Pvt Ltd.
194	Cystal Line water proofing admixture (PRAH Based)	AC- Crystacrete	Apple Chemie (I) Pvt Ltd.
195	Curing compounds	AC- Cure R- (M)	Apple Chemie (I) Pvt Ltd.
196	PU Sealant	AC- Proseal 400	Apple Chemie (I) Pvt Ltd.
197	Coal Tar Epoxy coating	AC- DUR-CT(S)	Apple Chemie (I) Pvt Ltd.
198	Ploy Urethane water proofing	AC-1K-PU	Apple Chemie (I) Pvt Ltd.
199	Wireless Building Management System	Protech	M/s Protech Technologies
200	Rapicon wall panel	Everest	M/s Everest Industries Ltd.

CONDITIONS OF CONTRACT

Definitions

1. The contract means the documents forming the bid and acceptance thereof and the formal agreement executed between the competent authority on behalf of the President of India and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the Contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:

   i. The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

   ii. The site shall mean the land/ or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

   iii. The contractor shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company. iv. The President means the President of India and his successors.

   v. The Engineer-in-Charge means the Engineer Officer who shall supervise and be incharge of the work and who shall sign the contract on behalf of the President of India as mentioned in Schedule 'F' hereunder.

   vi. Government or Government of India shall mean the President of India.

   vii. The terms Director General of Works includes Additional Director General and Chief Engineer of the Zone.

   viii. Accepting Authority shall mean the authority mentioned in Schedule F

   ix. Excepted Risk are risks due to riots (Other than those on account of Contractor's employees), war(Whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works.

x. Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits.

xi. Schedules(s) referred to in these conditions shall mean the relevant schedule(s)annexed to the bid papers or the standard Schedule of Rates of the Government mentioned in Schedule 'F' hereunder, with the amendments thereto issued up to the date of receipt of the bid.

xii. Department means CPWD or any department of Government of India which invites bids on behalf of President of India as specified in Schedule 'F'.

xiii. District Specifications means the Specifications followed by the State Government in the area where the work is to be executed.

xiv. Bided value means the value of the entire work as stipulated in the letter of award.

Scope and Performance

3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.

4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the bid papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out:

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

Sufficiency of Bid

The contractor shall be deemed to have satisfied himself before biding as to the correctness and sufficiency of his bid for the works and of the rates and prices quoted in the Schedule of Quantities, whose rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustment of Errors

7. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General conditions.

8.1 In the case of discrepancy between the Schedule of Quantities, the Specifications and/ or the drawings, the following order of preference shall be observed: -

i) Description of Schedule of Quantities.
ii) Particular Specifications and Special conditions, if any.
iii) Drawings.
iv) C.P.W.D. Specifications.
v) Indian Standard Specifications of B.I.S.

8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contract from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

Signing of Contract

9. The Successful bidder/contractor, on acceptance of his bid by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work sign the contract consisting of:

(i). The notice inviting bid, all the documents including drawings, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence leading thereto.

(ii). Standard C.P.W.D. Form as mentioned in Schedule 'F' consisting of:

(a) Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexure thereto.

(b) C.P.W.D. Safety Code.

(c) Model Rules for the protection of health, sanitary arrangements for workers employed by CPWD or its contractors.

(d) CPWD Contractor's Labour Regulations.

(e) List of Acts and omissions for which fines can be imposed.

(iii) No payment for the work done will be made unless contract is signed by the contractor.

GENERAL RULES & DIRECTIONS

1. All work proposed for execution by contract will be notified in a form of invitation to e- bid pasted in public places and signed by the officer inviting bid or by publication in Newspapers as the case may be.

   This form will state the work to be carried out, as well as the date for submitting and opening bids and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the bid, and the amount of the security deposit to be deposited by the successful bidder and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting bid shall also be open for inspection by the contractor at the office of officer inviting bid during office hours.

2. In the event of the bid being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of attorney authorizing him to do so, such power of attorney to be produced with the bid, and it must disclose that the firm is duly registered under the Indian Partnership Act. 1932.

3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their bid as a firm in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

4. Any person who submits a bid shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Bids, which propose any alteration in the work specified in the said form of invitation to bid, or in the time allowed for carrying out the work, or which contain any other condition of any sort including conditional rebates will be summarily rejected. No single bid shall include more than one work, but contractors who wish to bid for two or more works shall submit separate bid for each. Bid shall have the name and number of the works to which they refer, written on the envelopes.

   The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one.

5. The officer inviting bid or his duly authorized assistant, will open bid in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several bids in a comparative statement in a suitable form, in the event of a bid being accepted, a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the

specifications and other documents mentioned in Rule-I In the event of a bid being rejected, the earnest money forwarded with such unaccepted bid shall thereupon be returned to the contractors remitting the same, without any interest.

6. The officer inviting bids shall have the right of rejecting all or any of the bids and will not be bound to accept the lowest or any other bid.

7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement or payment to the officer inviting bid and the contractor shall be

8. responsible for seeing that he procures a receipt signed by the officer inviting bid or a duly authorized Cashier.

9. The memorandum of work bided for and the schedule of materials to be supplied by the department and their issue-rates shall be filled and completed in the office of the officer inviting bid before the bid form is issued. If a form is issued to an intending bidder without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his bid.

10. The bidders shall sign a declaration under the officials Secrets Act, 1923, for maintaining secrecy of the bid documents or other records connected with the work given to them.

11. In the case of any bid where unit rate of any item / items appear unrealistic, such bid will be considered as unbalanced and in case the bidder is unable to provide satisfactory explanation such a bid is liable to be disqualified and rejected.

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

13. (i) The Contractor whose bid is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the bided amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than ₹ 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form.

(ii) The contractor whose bid is accepted, will be required to furnish by way of security Deposit for the fulfilment of his contract, an amount equal to 2.5% of the bided value of the work. The security Deposit will be collected by deductions from the running and final bills of the contractor at the rates mentioned above. The security amount will also be accepted in cash or in the shape of Government Securities. Fixed deposit receipt of a scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.

14. On acceptance of the bid, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.

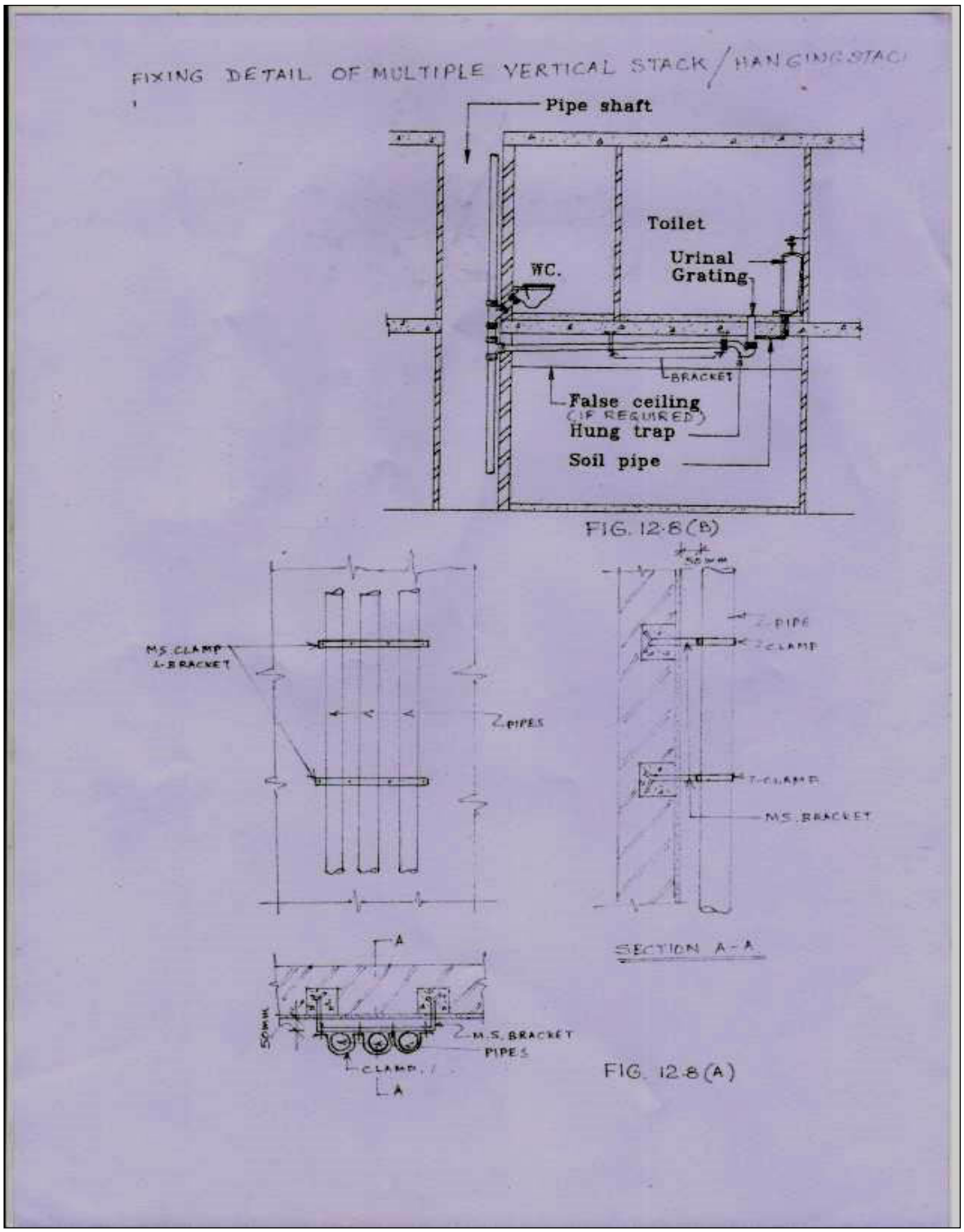
15. GST on material and service in respect of this contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same.

16. The contractor shall give a list of both gazetted and non-gazetted CPWD employees related to him.

17. The bid for the work shall not be witnessed by a contractor or contractors who himself / themselves has / have bided or who may and has / have bided for the same work. Failure to observe this condition would render, bids of the contractors biding, as well as witnessing the bid, liable to summary rejection.

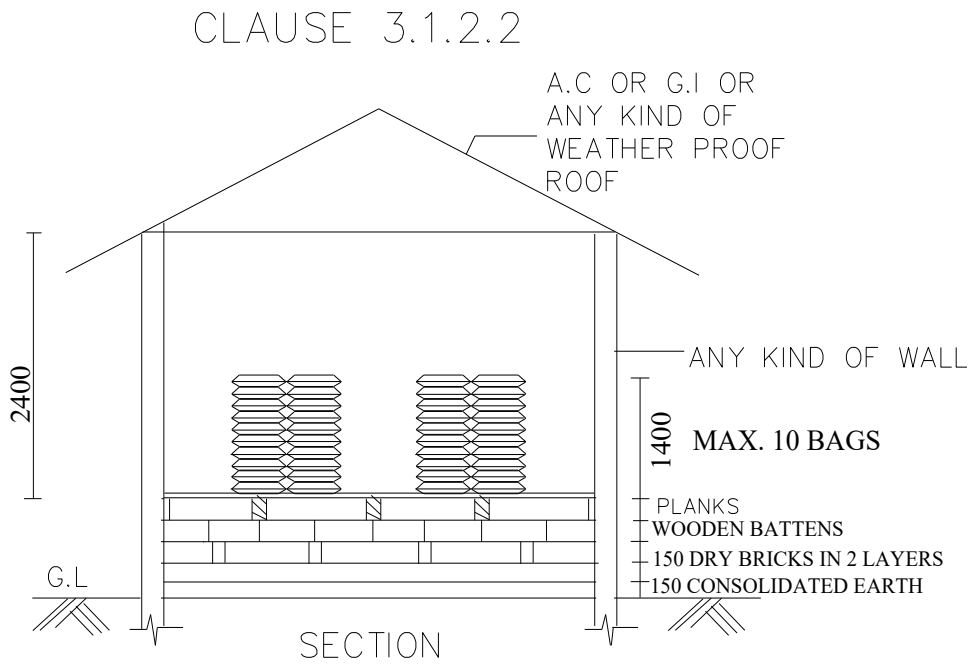
18. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so his failure will be a breach of the contract and the Superintending Engineer / Executive Engineer may in his discretion without prejudice to any other right or remedy available in law cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

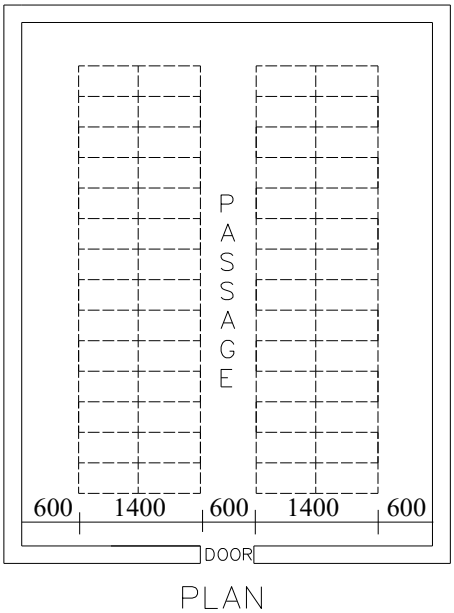
SKETCH SHOWING FIXING DETAILS OF VERTICAL CI / SCI PIPES / STACKS



CONTR. AE(C) / RMV

SKETCH OF CEMENT GODOWN.





DRAWING IS NOT TO SCALE.
DIMENSIONS ARE IN MM.

CONTR. AE(C) / RMV

SCHEDULE OF QUANTITIES

Name of Work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

Sl.No.	Description of Items	Qty.	Rate	Unit	Amount
1	Brick work with clay fly ash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :				
1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	1.00	9557.44	Cum	9,557.00
2	12 mm Portland Pozzolana cement plaster of mix :				
2.1	1:6 (1 Portland Pozzolana cement: 6 fine sand)	10.00	350.30	Sqm	3,503.00
3	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade.				
3.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	10.00	137.98	Sqm	1,380.00
4	Providing and applying white cement based wall putty in two coats to a thickness of 1.0mm (total thickness) over cement plastered wall surface to make it even and smooth using "JK" wall putty or "Birla" wall care putty or equivalent all complete (The rate quoted is inclusive of all operations of removal of dust, dirt and foreign matter etc., before applying the putty and curing the applied surface with water for sufficient days after the application of the putty and preparing the dried surface with fine emery paper fit to receive the paint). Note: No primer is to be applied on the surface of the putty. The acrylic emulsion paint shall be applied directly over the surface.	10.00	163.98	Sqm	1,640.00

CONTR. AE(C) / RMV

5	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				
5.1	With cement mortar 1:4 (1 cement : 4 fine sand)	2.00	575.23	Sqm	1,150.00
6	Providing and laying water proofing treatment to the mother slab and inner surfaces of walls of over head water tank, Sump tank etc. by applying : (i) First coat of Brush bond RFX @ DFT 1mm thick of M/S Fosroc chemicals or equivalent as per manufacturer's specification. This coat is to be air cured for 6 hours. (ii) Second coat of Brush bond RFX @ DFT 1mm thick of Fosroc chemicals or equivalent as per manufacturer's specification. This coat is to be air cured for 6 hours. Both First & Second coat together should have minimum DFT 1.5 mm thick (iii) Third coat of bond coat with Cement slurry mixed with SBR latex @ 3 liters per bag of cement applied as per manufacturers specification to get good bonding with next layer.	300.00	1131.43	Sqm	3,39,429.00

	(iv) Fourth coat of 12 mm Thick Cement Plaster in Cement mortar 1:3 (1 Portland Pozzolana Cement : 3 coarse sand) with floating coat of neat cement punning both admixed with conplast X421 IC of Fosroc or Pidi Proof 101 LW of pidilite or equivalent applied before the air curing of third layer. The rate includes preparation of surface treatment, removal of loose materials from surface using compressed air and sealing of all joints, corners, junctions of pipes and R.C.C with polymer mixed slurry etc. grouting the voids with polymer modified cement, all complete as per direction of Engineer-in- charge.				
	TOTAL:				**3,56,659.00**

Assistant Engineer (C),
CPWD, Rajamahendravaram.

CONTR. AE(C) / RMV

Central Public Works Department

NIT. No. 41/2026-27/EE/CPWD/Vijayawada

Name of work: Providing and laying Terrace Waterproofing Treatment and execution of other miscellaneous works at the Office of the Additional/Joint Commissioner of Customs, Customs House, Kakinada.

ABSTRACT OF COST

Name of the Contractor					
S.No.	**Name of Component**	**Estimated Cost**	**Percentage above or below the estimated cost**	**% in Figures**	**Total Cost**
1	**Estimated cost put to tender**	**Rs.3,56,659/-**			
	GRAND TOTAL	**Rs.3,56,659/-**			

Important Note:

1. The estimated cost of tender has been worked out by taking into consideration on Market Rates.
2. The tenderer is to quote a single consolidated percentage only at par/above/below estimated cost to cover all the rates of all the items under the schedule of composite tender.
3. If the percentage quoted are not clear, or if the rate is not quoted in percentage, the tender shall be treated as invalid and will not be entertained as lowest tenderer.

Contractor

Assistant Engineer(C),
CPWD ,Rajamahendravaram.

CONTR. AE(C) / RMV