

GOVERNMENT OF INDIA  
OFFICE OF THE SUPERINTENDING ENGINEER  
AIIMS Rishikesh

# NOTICE INVITING TENDER

**N.I.T. No.: 09/S.E/Civil/2018-19**

**NAME OF WORK :** Construction of Dietary Services Building  
at AIIMS Rishikesh.

**Estimated Cost** **Rs.4,00,02,159.00 /-**

**Earnest Money** **Rs. 8,00,000.00/-**

**Time allowed** **05(Five) Months**

**All India Institute of Medical Sciences**  
**Veerbhadra Marg, Rishikesh-249203**



**Tender document for Construction of Dietary services Building at AIIMS Rishikesh**

**Ref. No.** : **09/S.E/Civil/2018-19**  
**Publishing Date** : **25-08-2018 at 10.30 AM**  
**Bid Submission Start Date** : **25-08-2018 at 11.30 AM**  
**Last Date of Bid Submission** : **10-09-2018 at 3.00 PM**  
**Bid Opening** : **13-09-2018 at 03.30 PM**

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Certified that this bid document contains pages 1 to 142 (One to one hundred forty two )

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**AIIMS Rishikesh**  
**NOTICE INVITING e-TENDER**

The Superintending Engineer, AIIMS Rishikesh on behalf of Director AIIMS Rishikesh invites online Percentage rate composite tenders from approved and eligible contractors of CPWD, MES and Railway registered in appropriate class of the composite category for the following work (s):-

NIT NO. : **09/S.E/Civil/2018-19**

Name of Work :- Construction of Dietary Services Building at AIIMS Rishikesh

Estimated Composite Cost: ₹/- **4,00,02,159.00/-**

Earnest money : ₹ **8,00,000.00/-**, & period of completion : **05 (Five) Months**. Last date & time of submission of bids is 10.09.2018 at 3:00 PM

The tender forms and other details can be seen and downloaded from the website or <http://aiimsrishikesh.edu.in> /or [www.eprocure.gov.in](http://www.eprocure.gov.in).

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## Annexure 20 A.13.1

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

The Superintending Engineer, AIIMS Rishikesh on behalf of Director AIIMS Rishikesh invites online Percentage rate composite tenders from approved and eligible contractors of CPWD, MES and Railway registered in appropriate class of the composite category for the following work:-

S.No	NIT No	Name of work & Location	Estimated cost put to bid	Earnest Money	Period of Completion	Last date & time of submission of bid. Original EMD, Copy of receipt for deposition of original EMD, and other documents as specified in the press notice	Time & Date of opening of Bid
1	2	3	4	5	6	7	8
1	09/SE/CI VIL/2018 -19	Construction of Dietary Services Building at AIIMS Rishikesh	₹4,00,02,159.00/-	₹8,00,000.00/-	05 (Five) Months	3:00 PM on 10.09.2018	3:30 PM on 13.09.2018

- 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.
- Information and Instructions for bidders posted on website shall form part of bid document.
- 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 and downloaded from website or <http://aiimsrishikesh.edu.in> or from [www.eprocure.gov.in](http://www.eprocure.gov.in) free of cost.
- Bid can only be submitted after deposition of original EMD in the office of Superintending Engineer inviting bids within the period of bid submission and uploading the mandatory scan documents such as Demand Draft or Pay Order or Bankers cheque or Deposit at Call Receipt or Fixed Deposit Receipt and Bank Guarantee of any Scheduled Bank towards EMD in favor of Director AIIMS Rishikesh. Receipt for deposition of original EMD and other document as specified is to be submitted to office of Superintending Engineer AIIMS Rishikesh.**
- EMD shall be submitted separately and only those tenderer is considered whose EMD is**

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available.

6. Those contractors not registered on the website mentioned above, are required to get themselves registered beforehand.
7. The intending bidder must have valid class-II digital signature to submit the bid.
8. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
9. Contractor can upload documents in the form of **JPG** format and **PDF** format.
9. Contractor must ensure to quote percentage rate. The column meant for quoting rate in figures appears in pink color and the moment rate is entered, it turns sky blue.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". **However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above / below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.**

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

- I. Treasury Challan / Demand Draft / Pay Order or Banker's Cheque / Deposit at Call Receipt / FDR / Bank Guarantee of any Scheduled Bank against EMD.
- II. **Enlistment Order of the Contractor.**
- III. Certificate of Registration for G.S.T. and acknowledgement of latest filed return.  
  
(If the bidder has not obtained GST registration in the state in which the work is to be taken up, then in such a case the bidder shall upload following undertaking with the bid document "If work is awarded to me, I/we shall obtain GST registration certificate within one month from date of receipt of award letter or before payment of 1 st R.A. bill.")
- IV. **Copy of receipt for deposition of original EMD issued from S.E office AIIMS Rishikesh.**
- V. Electrical license from competent authority in the name of Contractor or undertaking that "**I, hereby confirm that I will either obtain valid electrical license at the time of execution of electrical work or associate CPWD ,MES. Railway registered contractor having valid electrical license of eligible class.**"
- VI. Copy of PAN card.
- VII. Address with Phone No. and email-ID of bidder.
- VIII. **Undertaking for site inspection [Intending bidders must upload undertaking that they have inspected and examined the site and it's surrounding before submitting their bids. (As per CPWD 6 Sl. No. 12 Page No. 8)]**
- IX. **Valid Character Certificate not later than 6 month and solvency of 10Crore(Approx. )**

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CPWD - 6

**Govt. of India**  
**AIIMS Rishikesh**  
**Notice Inviting Tender**

1. Percentage rate composite tenders are invited on behalf of Director AIIMS Rishikesh from approved and eligible composite category contractors of CPWD, MES, Railway for the work of Construction of Dietary Services Building at AIIMS Rishikesh.

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

1.1 The work is estimated Cost of work **Rs. 4,00,02,159.00/-** This estimate, however, is given merely as a rough guide.

1.2 Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee. (Scanned copy to be uploaded at the time of submission of bid).

2. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7 amended upto DG/CON/303 dated 16.07.2018 which is available as a Govt. of India Publication and also available on website of **CPWD**. Bidder shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.
3. The time allowed for carrying out the work will be **5(Five)** Months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. (i) The site for the work is available
- (ii) The architectural and structural drawings shall be made available in phased manner, as per requirement of the same as per approved programme of completion submitted by the contractor after award of the work.

**4.1 The contractor shall furnish all Good For Construction Drawing which is required as per site and as per the direction of Engineer-in-Charge.**

5 The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from website <https://cpwd.gov.in/> free of cost.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last date and time of submission of bid as notified.

7. While submitting the revised bid, contractor can revise the quoted rates but before last date and

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time of submission of bid as notified.

8. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted, then the bid submitted earlier shall become invalid.
9. Earnest Money in the form of Treasury Challan or Demand Draft or Pay Order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt of a Scheduled Bank (drawn in favour of Director, AIIMS Rishikesh shall be scanned and uploaded to the e-Tendering website within the period of bid submission.

The original EMD should be deposited either in the office of Superintending Engineer, inviting bids or within the period of bid submission. The EMD receiving Superintending Engineer shall issue a receipt of deposition of Earnest Money deposited to the bidder in a prescribed format (enclosed) given at Annexure – 'B' at Page No. 137.

This receipt shall also be uploaded to the e-tendering web site by the intending bidder upto the specified bid submission date and time. A part of earnest money is acceptable in the form of Bank Guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lakh, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any Scheduled Bank having validity for **90 (Ninety) Days** from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

Copy of Enlistment Order and certificate of work experience 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 within a week physically in the office of tender opening authority.

**Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with SE office of AIIMS Rishikesh and other documents scanned and uploaded are found in order.**

The bid submitted shall be opened at 03.30 PM on 13.09.2018.

9. The contractors registered prior to 01.04.2015 on e-tendering portal [www.eprocure.gov.in](http://www.eprocure.gov.in) of shall have to deposit tender processing fee at existing rates or they have option to switch over to the new registration system without tender processing fee any time.
10. The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:
- (i) The bidder is found ineligible.
  - (ii) The bidder does not deposit original EMD with Superintending Engineer office AIIMS Rishikesh.
  - (iii) The bidder does not upload all the documents (including GST registration) as stipulated in the bid document including the copy of receipt for deposition of original EMD.
  - (iv) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
  - (v) 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.

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11. 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 Rs. 10000/-) 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 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 along with bid shall be returned after receiving the aforesaid performance guarantee. **The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses / registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any, engaged by the contractor for the said work and Programme Chart (Time and Progress) / PERT chart within the period specified in Schedule F.**

12. **The description of the work is as follows:-**

**The scope of work includes :-** Construction of Dietary Service Building at AIIMS Rishikesh" ..

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. Nothing extra will be payable on account of dewatering due to subsoil water, rainwater, sewage water or similar cause. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

13. The competent authority on behalf of the Director AIIMS Rishikesh 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. **Conditional tenders shall summarily be rejected without assigning any reason.**
14. 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.
15. The contractor shall not be permitted to bid for work in which his near relative is posted 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

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Officer in the AIIMS Rishikesh. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department. Concealing the facts regarding relatives working in the AIIMS is liable to reject the tender.

16. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
17. The bid for the works shall remain open for acceptance for a period of **Forty five (45)** days from the date of opening of bids. 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 bidder shall not be allowed to participate in the re-bidding process of the work.**
18. 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 : -
- 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 & negotiation leading thereto.
  - Standard C.P.W.D. Form 7 amended upto **DG/CON/303 dated 16.07.2018.**
19. **For Composite Bids**
- 19.1.1 Superintending Engineer will call bids for the composite work.
- 19.1.2 The bid document will include following three components:
- Part A:- CPWD-6, CPWD-7 including Schedule A to F for the work,  
Standard General Conditions of Contract for AIIMS RISHIKESH, 2014 as amended / modified upto **DG/CON/303 dated 16.07.2018.**
- Part B:- Particular Specifications and Special conditions, specifications and schedule of quantities as applicable to major component of the work.
- Part C:- Schedule A to F for minor component of the work. (SE in charge of major component shall also be competent authority under clause 2 and clause 5 as mentioned in Schedule A to F for major components). Special Conditions, additional terms & conditions, specifications and schedule of quantities applicable to minor component(s) of the work.
- 20.1.3 For electrical works, the bidder should have **valid electrical license from competent authority in the name of the contractor. However, the contractors is allowed to participate in tender with an undertaking that they will either obtain valid electrical license at the time of execution of electrical work or associate contractors having valid electrical license of eligible class.**

20.1.4 Entire work under the scope of bid including civil and electrical components shall be executed under one agreement.

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20.1.5 If required, the main contractor has to associate agency for electrical component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency to Superintending Engineer of minor component within prescribed time. Name of the agency to be associated shall be approved by Superintending Engineer.

20.1.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Superintending Engineer. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Superintending engineer is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

20.1.10 The main contractor has to enter into agreement with contractor associated by him for execution of Electrical work. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.

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

21.0 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 Superintending Engineer, 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 re-tendering process of the work.

22.0 A new provision of Integrity Pact (IP) was introduced in GCC-2014 vide DG/CON/281 dated 04/08/2014. In the OM it is mentioned that at the time of submission of bid, it shall be mandatory to sign the pact by the bidder failing which the bidder will stand disqualified from the tendering process and such bid would be summarily rejected. In case of e-tendering, Integrity Pact shall be treated in the same manner as other components of the bid document. In e-tendering, the intending bidder does not sign any document physically and entire bid document is submitted through digital signature. Since IP is a part of bid document no separate physical submission is required with other documents to be submitted in the office of tender opening authority. In addition to other component of bid document, the Integrity Pact along shall also be signed between Superintending Engineer and successful bidder after acceptance of bid.

23.0 **Jurisdiction of Courts**

The Court of the place from where the letter of award of work has been issued shall have the jurisdiction to decide any dispute arising out of or in respect of the contract.

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**INTEGRITY PACT**

To,  
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Sub: NIT No. 09/SE/CIVIL/2018-19 for the work of " :- Construction of Dietary Services Building at AIIMS Rishikesh"

Dear Sir,

It is here by declared that AIIMS Rishikesh is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender / bid documents, failing which the tenderer / bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the AIIMS Rishikesh.

Yours faithfully,

Superintending Engineer

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To,

The Superintending Engineer,  
AIIMS Rishikesh (U.K)

Sub: Submission of Tender for the work "Construction of Dietary Services Building at AIIMS Rishikesh"

Dear Sir,

I / We acknowledge that AIIMS Rishikesh is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I / We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by AIIMS Rishikesh. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, AIIMS Rishikesh shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

**(Duly authorized signatory of the Bidder)**

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**To be signed by the bidder and same signatory competent / authorised to sign the relevant contract on behalf of AIIMS Rishikesh.**

**INTEGRITY AGREEMENT**

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

**BETWEEN**

Director, AIIMS Rishikesh represented through Superintending Engineer, AIIMS Rishikesh,  
(Name of Division)  
....., (Hereinafter referred as the  
(Address of Division)

'Principal / Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

**AND**

.....  
(Name and Address of the Individual/firm/Company)  
through.....(hereinafter referred to as the  
(Details of duly authorized signatory)

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

**Preamble**

WHEREAS the Principal /Owner has floated the Tender (NIT No 09/SE/CIVIL/2018-19.) (hereinafter referred to as “Tender/Bid”) and intends to award, under laid down organizational procedure, contract for ..... hereinafter referred to as the “Contract”.

(Name of work)

AND WHEREAS the Principal / Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “Integrity Pact” or “Pact”), the terms and conditions of which

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shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

**Article 1: Commitment of the Principal / Owner**

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - (c) The Principal / Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC) / Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal / Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

**Article 2: Commitment of the Bidder (s) / Contractor (s)**

- 1) It is required that each Bidder / Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s) / Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

CORRECTION	<u>  NIL  </u>	INSERTION	<u>  NIL  </u>
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- a) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal / Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
- b) The Bidder(s) / Contractor (s) will not enter with other Bidder (s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
- c) The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s) / Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder(s)/ Contractor(s) of foreign origin shall disclose the names and addresses of agents / representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
- e) The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose (with each tender as per proforma enclosed) any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract
- 3) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a willful misrepresentation or omission of facts or submission of fake/ forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**

CORRECTION	NIL	INSERTION	NIL
CUTTING	NIL	OVERWRITING	NIL
		AE	EE
			SE

- 5) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his / her reputation or property to influence their participation in the tendering process).

### **Article 3: Consequences of Breach**

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal / Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder / Contractor accepts and undertakes to respect and uphold the Principal / Owner's absolute right:

- 1) If the Bidder (s) / Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate / determine the Contract, if already executed or exclude the Bidder/ Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/ Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

2) **Forfeiture of EMD / Performance Guarantee / Security Deposit:**

If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder / Contractor.

- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of Indian Penal code (IPC)/Prevention of Corruption Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

### **Article 4: Previous Transgression**

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holding listing of

CORRECTION	NIL	INSERTION	NIL			
CUTTING	NIL	OVERWRITING	NIL	AE	EE	SE

the Bidder/Contractor as deemed fit by the Principal/ Owner.

- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

**Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors**

- 1) The Bidder(s)/ Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder / Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
- 2) The Principal / Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal / Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

**Article 6- Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor / Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, AIIMS Rishikesh.

**Article 7- Other Provisions**

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the **Head quarters of the Division** of the Principal / Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

CORRECTION	<u>  NIL  </u>	INSERTION	<u>  NIL  </u>			
CUTTING	<u>  NIL  </u>	OVERWRITING	<u>  NIL  </u>	AE	<u>      </u>	EE <u>      </u> SE <u>      </u>

- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this **Integrity Agreement/ Pact or interpretation** there of shall not be subject to arbitration.

**Article 8- LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender / Contract documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....  
(For and on behalf of Principal/Owner)

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

**WITNESSES:**

- 1. .... (Signature, name and address)
- 2. .... (Signature, name and address)

Place: -

Dated: -

CORRECTION	<u>  NIL  </u>	INSERTION	<u>  NIL  </u>			
CUTTING	<u>  NIL  </u>	OVERWRITING	<u>  NIL  </u>	AE	EE	SE

## निविदा TENDER

मैंने/हमने कार्य के लिए निविदा आमंत्रण सूचना, अनुसूची क,ख,ग,घ, ड., और च, लागू विनिर्देश, नक्शे एवं डिजाइन, सामान्य नियम एवं निर्देश, ठेके के उपबंध, विशिष्ट शर्तें, दर अनुसूची एवं अन्य कागजात तथा ठेके की शर्तों में दिए गए नियम तथा निविदा कागजात में उल्लिखित अन्य बातों को पढ़ व जांच लिया है।

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.

मैं/हम, एतद्वारा **निदेशक एम्स ऋषिकेश** के लिए अनुसूची 'च' में विनिर्दिष्ट समय के अन्दरतर विनिर्दिष्ट कार्य, यथा-मात्राओं की अनुसूची तथा सभी संबंधित विनिर्देशों, डिजाइनों, नक्शों के अनुरूप तथा सामान्य नियमावली के नियम-1 और ठेके की शर्तों के खंड-11 में उल्लिखित लिखित अनुदेशों एवं ऐसी सामग्रियों, जो प्रदान की जाती है और उसके संबंध में, ऐसी शर्तें जो लागू हो, के अनुरूप निष्पादन हेतु निविदा देता हूँ/देते हैं।

I/We hereby tender for the execution of the work specified for the Director, AIIMS Rishikesh 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.

हम निविदा को, इसके खोले जाने की निर्धारित तारीख से पैंतालीस (45)दिन के लिये खुला रखने तथा इसकी शर्तों एवं निबंधनों में, किसी प्रकार का परिवर्तन ना करने के लिए सहमत है।

I/We agree to keep the tender open for **Forty Five (45) days** from the due date of opening of tender and not to make any modification in its terms and conditions.

₹ **8,00,000.00/-** की धनराशि, धरोहर राशि के रूप में नकद/ट्रेजरी चालान रसीद/अनुसूचित बैंक की मांग जमा रसीद/अनुसूचित बैंक की सावधी जमा रसीद /अनुसूचित बैंक का डिमांड ड्राफ्ट/ अनुसूचित बैंक द्वारा जारी बैंक गारंटी के रूप एतद् द्वारा अग्रेशित की जाती है/रु.....की धनराशि, , की प्रति धरोहर राशि के रूप में ट्रेजरी चालान रसीद/अनुसूचित बैंक की मांग जमा रसीद/ अनुसूचित बैंक की सावधी जमा रसीद /अनुसूचित बैंक का डिमांड ड्राफ्ट/ अनुसूचित बैंक द्वारा जारी बैंक गारंटी के रूप में अपलोड की जाती है।( जो लागु न हो उसे काट दें)। यदि मैं / हम निर्धारित निष्पादन गारंटी को निर्धारित समय अवधि में प्रस्तुत करने में असफल रहते हैं तो मैं/ हम यह मंजूर करते हैं कि भारत के उक्त राष्ट्रपति या उनके कार्यालय के उत्तराधिकारी किसी अन्य अधिकार या उपचारी उपाय पर प्रतिकूल प्रभाव डाले बिना उक्त धरोहर राशि जब्त करने के लिए पूर्णतया स्वतंत्र होंगे। इसके अलावा, यदि मैं/हम विनिर्दिष्ट कार्य प्रारंभ करने में असफल रहते हैं तो मैं/ हम यह मंजूर करते हैं कि **निदेशक एम्स ऋषिकेश** या उनके कार्यालय के उत्तराधिकारी कानून में उपलब्ध किसी अन्य अधिकार या उपचारी उपाय पर प्रतिकूल प्रभाव डाले बिना उक्त धरोहर राशि, तथा निष्पादन गारंटी जब्त करने के लिए पूर्णतया स्वतंत्र होंगे। उक्त निष्पादन गारंटी निविदा कागजात के अनुसार उसमें निहित शर्तों व निबंधनों के अनुसार कार्यों के निष्पादन एवं आदिष्ट विचलनों को अनुसूची 'च' में वर्णित प्रतिशत से अनधिक व निविदा प्रपत्र के खण्डों 12.2 व 12.3 में निहित प्रावधानों के अनुसार निश्चित की जाने वाली दरों पर उस सीमा से अधिक के विचलनों के करने के लिए उनके द्वारा गारंटी होगी।

CORRECTION	NIL	INSERTION	NIL			
CUTTING	NIL	OVERWRITING	NIL	AE	EE	SE

A sum of ₹ 8,00,000.00/- is hereby forwarded in Cash/ Receipt Treasury Challan/ Deposit at Call Receipt of a Scheduled Bank/ Fixed Deposit Receipts of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank Guarantee issued by a Scheduled Bank as earnest money./ A copy of the earnest money in Receipt Treasury Challan/ Deposit at Call Receipt of a Scheduled Bank/ Fixed Deposit Receipts of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank Guarantee issued by a Scheduled Bank is scanned and uploaded (**strike out as the case may be**). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/we agree that the said Director, AIIMS Rishikesh or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that Director, AIIMS Rishikesh or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

इसके अतिरिक्त मैं/हम सहमत हैं कि उपर्युक्त बयाना राशि या निष्पादन गारंटी जब्त हो जाने के मामले में मुझे/हमें कार्य की पुनः निविदा प्रक्रिया में भाग लेने से रोक दिया जाएगा ।

**Further, I/we agree that in case of forfeiture of earnest money or performance guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.**

मैं वचन देता हूँ तथा पुष्टि करता हूँ / हम वचन देते हैं तथा पुष्टि करते हैं कि पात्रता के लिये समान निर्माण कार्य को बैंक टू बैंक आधार पर एक अन्य ठेकेदार द्वारा नहीं करवाया गया है। इसके अलावा यदि इस प्रकार का उल्लंघन विभाग की जानकारी में आता है तो मुझे /हमें भविष्य में एम्स ऋषिकेश में निविदा देने से हमेशा के लिए वंचित कर दिया जाएगा। साथ ही, यदि कार्य के प्रारंभ होने की तारीख से पहले इस प्रकार का उल्लंघन विभाग की जानकारी में आता है तो भारसाधक इंजीनियर को बयाना राशि जमा से और कार्य निष्पादन गारंटी की समग्र राशि जब्त करने की स्वतंत्रता होगी।

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

मैं/हम एतद्द्वारा घोषणा करते हैं कि मैं/हम निविदा कागजातों, नक्शों और कार्य से संबंधित अन्य अभिलेखों को गुप्त/गोपनीय कागजात के रूप में रखेंगे और उनसे प्राप्त/ली गई जानकारी किसी अन्य को, जिन्हें मैं/हम सूचित करने के लिए प्राधिकृत हो, से भिन्न किसी को, नहीं बताएंगे या जानकारी को किसी ऐसे रूप में प्रयोग नहीं करेंगे जो राज्य की सुरक्षा के लिए प्रतिकूल हो।

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

तारीख Dated #.....

ठेकेदार के हस्ताक्षर Signature of Contractor#  
डाक का पता Postal Address#

साक्षी Witness : #

पता Address: #

उपजीविका Occupation : #  
applicable

# To be filled in by the contractor/witness as

CORRECTION	NIL	INSERTION	NIL		
CUTTING	NIL	OVERWRITING	NIL	AE	EE SE

## स्वीकृति ACCEPTANCE

मैं निदेशक एम्स ऋषिकेश की ओर से तथा उनके लिए ₹ ..... (रुप, .....\*)  
की राशि के लिए उपर्युक्त निविदा (अधोलिखित पत्रों के अनुसार परिवर्तित) स्वीकार करता हूँ।

The above tender (as modified you vide letters mentioned hereunder) is accepted by me for and on behalf of the  
Director, AIIMS Rishikesh for a sum of ₹. \_\_\_\_\_\*

(Rupees \_\_\_\_\_\*)

नीचे दिए गए पत्र इस ठेका करार का हिस्सा होंगे।

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

- a) \*
- b) \*
- c) \*

For & on behalf of the Director AIIMS Rishikesh .

हस्ताक्षर Signature .....\*

तारीख Dated .....\*

पदनाम Designation .....\*

\* To be filled in by Superintending Engineer , AIIMS RISHIKESH.

CORRECTION	NIL	INSERTION	NIL	
CUTTING	NIL	OVERWRITING	NIL	AE      EE      SE

अनुसूचियां **SCHEDULES**  
(FOR work)

अनुसूची 'क' **SCHEDULE 'A'**  
मात्राओं की अनुसूची (संलग्न)

Schedule of quantities (As per PWD-3) (Enclosed) Page No. 30-48

अनुसूची 'ख' **SCHEDULE 'B'**  
टेकेदार की निर्गत की जाने वाली सामग्रियों की अनुसूची  
Schedule of materials to be issued to the contractor.

क्रम. सं. S.No.	मद विवरण Description of item	मात्रा Quantity	जिस दर पर सामग्रियां टेकेदार को प्रभारित होगी वह दर अंकों एवं शब्दों में Rates in figures & words at which the material will be charged to the contractor	निर्गत स्थान Place of Issue
1	2	3	4	5
<del>NIL</del>				

अनुसूची 'ग' **SCHEDULE 'C'**

टेकेदार को भाड़े पर दिए जाने वाले औजार एवं संयंत्र

Tools and plants to be hired to the contractor

क्रम सं. Sl. No.	विवरण Description	भाड़ा प्रभार प्रतिदिन Hire charges per day	निर्गत स्थान Place of Issue
1	2	3	4
<del>NIL</del>			

CORRECTION	NIL	INSERTION	NIL	
CUTTING	NIL	OVERWRITING	NIL	AE _____ EE _____ SE _____



अनुसूची 'घ' **SCHEDULE 'D'**

कार्य के लिए विशेष अपेक्षाएं/दस्तावेज, यदि कोई हों, की अतिरिक्त अनुसूची

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

अनुसूची (ड) **SCHEDULE 'E'**

ठेके की सामान्य शर्तों का संदर्भ

Reference to General Conditions of contract

General Conditions of Contract for CPWD Works, 2014 as amended upto

**DG/CON/303 dated 16.07.2018**

कार्य का नाम Name of work :

Construction of Dietary service Building at AIIMS Rishikesh.

कार्य की अनुमानित लागत Estimated cost of work

: ₹ 4,00,02,159.00/-

(i) धरोहर राशि Earnest money:  
**receiving Performance Guarantee)**

₹ 8,00,000.00/- (To be returned after

(ii) निष्पादन गारंटी Performance guarantee :

5% of tendered value. निविदित मूल्य का 5 प्रतिशत

(iii) प्रतिभूति निक्षेप% Security Deposit:

2.5% of tendered Value

अनुसूची 'च' **SCHEDULE 'F'**

सामान्य नियम एवं दिशानिर्देश:

**General Rules & Directions:**

निविदा आमंत्रण करने वाला प्राधिकारी

Officer inviting tender -

कार्य की मर्दों की मात्रा के लिए अधिकतम प्रतिशत जिससे अधिक निष्पादित मर्दों के लिए दरों का निर्धारण खण्ड 12.2 और 12.3 के अनुसार होगा

SE/ AIIMS RISHIKESH

निम्नानुसार

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 &amp; 12.3.

see below

Definitions:

2(v) भारसाधक इंजीनियर

Engineer-in-Charge

Superintending Engineer, AIIMS RISHIKESH.

2(viii) स्वीकार कर्ता प्राधिकारी

Accepting Authority

Superintending Engineer, AIIMS RISHIKESH

2(x) अतिरिक्त और लाभों को पूरा करने के

लिए श्रम एवं सामग्रियों की लागत पर प्रतिशतता

Percentage on cost of materials and

labour to cover all overheads and profits.

15% (Fifteen per cent)

2(xi) दरों की मानक अनुसूची

Standard schedule of Rates

Delhi Schedule of Rate 2016(Civil) with correction slips issued upto date of receipt of tender.

2(xii) विभाग

Department

AIIMS Rishikesh

9(ii) मानक के.लो.नि.वि. ठेका फार्म

Standard CPWD contract Form

CPWD Form 7 (Print edition -2014) as modified &amp; corrected upto DG/CON/ 303 dated 16.07.2018

CORRECTION	NIL	INSERTION	NIL			
CUTTING	NIL	OVERWRITING	NIL	AE	EE	SE

**खण्ड Clause 1**

- (i) स्वीकृति पत्र जारी होने की तारीख से निष्पादन गारंटी के प्रस्तुतीकरण के लिए, अनुमत समय  
Time allowed for submission of performance guarantee, programme chart (Time & 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 : 10 days
- पद्ध (उपर्युक्त प) में दी गई अवधि के पश्चात् अधिकतम अनुमेय एक्सटेंशन  
Maximum allowable extension with late fee @ 0.10% per day of performance guarantee amount beyond the period as provided in (i) above : 05 days

**खण्ड Clause 2**

खण्ड 2 के तहत प्रतिकार निश्चित करने वाला प्राधिकारी  
Authority for fixing Superintending Engineer AIIMS RISHIKESH,  
compensation under clause 2

**खण्ड Clause 2A**

क्या खण्ड 2 क लागू होगा

Whether clause 2A shall be applicable **No**

**खण्ड Clause 5**

कार्य आरंभ की तारीख की गणना के लिए स्वीकृति पत्र के जारी होने की तारीख से दिनों की संख्या  
No. of days from the date of issue of letter of acceptance for reckoning date of start 15 days.

**खण्ड Clause 5.2**

Nature of Hindrance Register (either Physical or Electronic) Physical.

**खण्ड Clause 5.4**

Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days. (Recovery to be made on per day of delay at the rate specified as under):

Sl. No.	Contract Value	Recovery Rs.
I.	Less than or equal to Rs. 1 Crore	500
II.	More than Rs. 1 Crore but less than or equal to Rs. 5 Crores	1000
III.	More than Rs. 5 Crore but less than or equal to Rs. 20 Crores	2500
IV.	More than Rs. 20 Crores	5000

\* To be filled in by Superintending Engineer, AIIMS RISHIKESH

CORRECTION	NIL	INSERTION	NIL			
CUTTING	NIL	OVERWRITING	NIL	AE	EE	SE

लक्ष्य नीचे दी गई सारणी के अनुसार  
**Milestone(s) : - As per Table given below**

लक्ष्य (मील-पत्थर) सारणी

**Table of milestone(s)**

Sl. No.	Description of Mile stone	Time allowed in Months (From date of start) for achieving milestone	Amount to be withheld in case of Non-achievement of each mile stone
1.	Construction upto plinth level	01 Months	1.0% of composite tendered amount
2.	RCC work upto ground floor slab.	2 Months	1.0% of composite tendered amount
3.	Brick work upto ground floor slab and RCC upto 1 <sup>st</sup> floor	3 Months	1.0% of composite tendered amount
4.	Finishing work of ground floor including electrical work	4 Months	1.0% of composite tendered amount
5.	All complete work including electrical and civil work and handing over	5 Months	1.0% of composite tendered amount

कार्य निष्पादित करने के लिए अनुमत्य समय

Time allowed for execution of work

Authority to decide

(i) Extension of Time

**05 (Five) Months**

Superintending, AIIMS Rishikesh

(ii) Rescheduling of mile stones

Superintending, AIIMS Rishikesh

खण्ड **Clause 6, 6A**

खंड लागू-(6 या 6 क) Clause applicable

**6 A**

खण्ड **Clause 7**

अंतरिम भुगतान के लिए पात्र होने के लिए अंतिम ऐसे भुगतान के बाद कुल भुगतान एकत्रित सामग्रियों के अग्रिमों के समायोजन सहित किया जाने वाला कुल कार्य  
**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 Crore**

खण्ड 7 क **Clause7A**

Weather clause 7 A shall be applicable

**Yes**

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

खण्ड 10 क **Clause10A**

कार्यस्थल प्रयोगशाला में टेकेदार द्वारा उपलब्ध कराये जाने परीक्षण उपकरण की सूची

List of testing equipment to be provided by the contractor at site lab.

**See Para SI. No. 13.0 of Particular Specifications and Special Conditions of NIT**

खण्ड **Clause10B(ii)**

क्या खण्ड 10 ख (ii) लागू होगा

Whether clause 10B (ii) shall be applicable

**No**

खण्ड **Clause10C**

Component of labour expressed as Percent of value of work

**25%** (Qualifying amount for labour component will be 85% of the value of the work executed during period under consideration.)

CORRECTION   NIL   INSERTION   NIL  

CUTTING   NIL   OVERWRITING   NIL   AE        EE        SE

## खण्ड Clause 10CA

## Applicable

Material covered under this clause	Nearest materials (Other than cement*, reinforcement bars and structural steel) for which All India Whole Sale Price Index is to be followed.	Base Price of all materials covered under clause 10 CA * (The rates taken are excluding of GST)	Period of base Price
1 Cement 2 Steel reinforcement Bars TMT(Primary Manufacturer)	NA NA	1. Rs. 3,837/- per MT 2. Rs. 45,500/- per MT	June' 2018

\* Includes cement component used in RMC brought at site from outside approved RMC plants, if any.

## खण्ड Clause 10CC

Not Applicable

## खण्ड Clause 11

कार्य निष्पादन के लिए अनुपालन  
Specifications to be followed for execution of work  
खण्ड Clause 12 Type of Work  
12.2 & 12.3

CPWD Specification 2009, Volume-I & II  
with correction slips upto date of receipt of tender.  
Original Work

विचलन सीमा जिसके परे खण्ड 12.2 तथा 12.3 भवन निर्माण  
कार्य के लिए लागू होंगे  
Deviation limit beyond which clauses 12.2 & 12.3  
shall apply for building work (Other than foundation)

30%

12.5

(i) Deviation limit beyond which clauses 12.2 & 12.3  
shall apply for foundation work (except items mentioned  
in earth work subhead of DSR and related items)

30%

(ii) Deviation limit for items mentioned in earth work  
subhead of DSR and related items

100%

## खण्ड Clause 16

घटी हुई दरें निर्धारित करने की लिए सक्षम प्राधिकारी  
Competent Authority for deciding  
reduced rates

Superintending, AIIMS Rishikesh.

## खण्ड Clause 18

कार्यस्थल पर ठेकेदार द्वारा लगाये जाने वाली अनिवार्य  
मशीनरी औजार एवं सयंत्रों की सूची :-  
List of mandatory machines, tools and  
plants to be deployed by the contractor at site.

See Para Sl.no. 11.0 of Particular  
Specifications and Special Conditions of NIT

## खण्ड Clause 25

Place of arbitration

To be decided by competent authority at the  
time of appointment of Arbitrator.

## Constitution of Dispute Redressal Committee (DRC)

Director AIIMS Rishikesh is authority to constitute redressal committee (DRC) as contained in CPWD works manual.

## खण्ड Clause 31

CORRECTION	NIL	INSERTION	NIL			
CUTTING	NIL	OVERWRITING	NIL	AE	EE	SE

Whether clause 31 shall be applicable **Yes**

खण्ड **Clause 36(i)**

**“Requirement of Technical Representative(s) and Recovery Rate**

SNo	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical / Technical representative)	Minimum experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i)	
						Figures	Words
1	Graduate Engineer	CIVIL	Project Manager	5 ( and having experience of one silimar nature of work)	1	Rs. 50,000/- Per Month	Rupees fifty Thousand Per Month
1	Graduate Engineer Or Diploma Engineer	CIVIL & ELECTRICAL OR CIVIL & ELECTRICAL	Project Planning / Quality / Billing Engineer	2- Years or 5 Years	1+1 or 1+1	Rs.35,000/-Per Month per person	Rupees thirty five Thousand Per Month each

सरकारी सेवा से सेवानिवृत्त वे सहायक अभियंता जो डिप्लोमाधारक हों, ग्रेजुएट अभियंता के बराबर माने जाएंगे ।

**“Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.”**

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

खण्ड **Clause 42**

- I) क) सीमेन्ट और बिटुमन की अनुमानमूल मात्रा निर्धारित करने के लिए अनुसूची/विवरण
- केलोनवि द्वारा मुद्रित दिल्ली दर अनुसूची 2016 के आधार पर
- I) (a) Schedule/statement for determining theoretical quantity of cement & bitumen
- On the basis of Delhi Schedule of Rates 2016 printed by C.P.W.D. with correction slips issued up to date of receipt of tender.
- II) अनुमानमूलक मात्राओं में अनुमत्य विचलन
- Variations permissible on theoretical quantities.
- क) सीमेन्ट जिन कार्यों के लिए निविदा में अनुमानित मूल्य रु. 5 लाख से अधिक न हो
- a) Cement for works with estimated cost put to tender not more than Rs. 5 lakhs
- Not Applicable
- जिन कार्यों के लिए निविदामें अनुमानित मूल्य रु. 5 लाख से अधिक हो
- for works with estimated cost put to tender more than Rs. 5 lakhs
- 2 प्रतिशत जमा/घटा
- 2 % plus/minus.
- ख) बिटुमन सभी कार्यों के लिए
- b) Bitumen for all works
- 2.5 प्रतिशत केवल जमा और घटा के पक्ष में शून्य
- 2.5% plus only & Nil on minus side
- x½ इस्पात प्रत्येक व्यास, कोट और श्रेणी के लिए पूर्वलन और संरचनात्मक इस्पात काट
- 2 प्रतिशत जमा/घटा
- c) Steel Reinforcement and structural steel sections for each diameter, section and category.
- 2% plus/minus
- घ) सभी अन्य सामग्रियां
- d) All other materials
- शून्य
- Nil.

CORRECTION	NIL	INSERTION	NIL	
CUTTING	NIL	OVERWRITING	NIL	AE EE SE

अनुमत्य विचलन से अधिक की मात्राओं के लिए वसूली दरें  
**RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION**

क्रम सं. Sl No.	मद विवरण Description of item	अंको और शब्दों में वह दर जिस पर ठेकेदार से वसूली की जाएगी Rates in figures and words at which recovery shall be made from the Contractor
		अनुमत्य विचलन से अधिक आधिक्य Excess beyond permissible variation
		अनुमत्य विचलन से अधिक उपयोग घटाया Less use beyond the permissible variation
1.	सीमेन्ट Cement	N.A. <b>Not Permitted</b>
2.	ईस्पात Steel Reinforcement	N.A. <b>Not Permitted</b>

CORRECTION	NIL	INSERTION	NIL			
CUTTING	NIL	OVERWRITING	NIL	AE	EE	SE

**FORM OF EARNEST MONEY DEPOSIT**  
**BANK GUARANTEE BOND**

WHEREAS, contractor ..... (Name of contractor) (hereinafter called "the contractor") has submitted his tender dated ..... (date) for the construction of ..... (name of work) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we ..... (name of bank) having our registered office at ..... (hereinafter called "the Bank") are bound unto ..... (Name and division of Superintending Engineer) (hereinafter called "the Engineer-in-Charge") in the sum of Rs. .... (Rs. in words) ..... ) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this ..... day of ..... 20...

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;
- (2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:
  - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required; OR
  - (b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor.

We undertake to pay to the Engineer-in-Charge either up to the above amount or part thereof upon receipt of first written demand, without the Engineer-in-Charge having to substantiate his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date of opening of tender for a period of 90 days after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE .....

SIGNATURE OF THE BANK

WITNESS .....

SEAL

(SIGNATURE, NAME AND ADDRESS)

CORRECTION	<u>  NIL  </u>	INSERTION	<u>  NIL  </u>						
CUTTING	<u>  NIL  </u>	OVERWRITING	<u>  NIL  </u>	AE	<u>      </u>	EE	<u>      </u>	SE	<u>      </u>

**Schedule Of Quantity**  
**Construction of Dietary Service Building For Hospital Building AIIMS.**

S.No	Description	Qty	Unit	Rate	Amount
1.2	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.				
1.2.1	All kinds of soil	1880.00	cum	125.95	236786.00
1.3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	1200.00	cum	125.75	150900.00
1.4	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.				
1.4.1	All kinds of soil	480.00	cum	51.75	24840.00
1.5	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	120.00	cum	917.75	110130.00
2	CONCRETE WORK				
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
2.1.1	1:5:10 (1 cement : 5 coarse sand (zone-III): 10 graded stone aggregate 40 mm nominal size).	145.00	cum	4209.05	610312.00
2.4	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	39.00	sqm	91.9	3584.00
	Sub-Total				
3	REINFORCED CEMENT CONCRETE				
3.1	Centering and shuttering including strutting, propping etc. and removal of form for:				

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE        EE        SE



3.1.1	Foundations, footings, bases of columns, etc. for mass concrete	450.00	sqm	193.95	87278.00
3.1.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	680.00	sqm	378.6	257448.00
3.1.3	Suspended floors, roofs, landings, balconies and access platform	1200.00	sqm	422.3	506760.00
3.1.4	Shelves (Cast in situ)	50.00	sqm	422.3	21115.00
3.1.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	1250.00	sqm	342.9	428625.00
3.1.6	Columns, Pillars, Piers, Abutments, Posts and Struts	500.00	sqm	467.85	233925.00
3.1.7	Stairs, (excluding landings) except spiral-staircases	100.00	sqm	419.35	41935.00
3.2	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
3.2.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	82500.00	Kg	56.6	4669500.00
3.3	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
3.3.1	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	90500.00	Kg	56.6	5122300.00
	Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge." Note : Excess/less cement used than specified in this item is payable/ recoverable separately.				
	All works upto plinth level				

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE    EE    SE

	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	100	cum	6190.7	619070.00
3.4	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).				
3.4.1	All works upto plinth level	430.00	cum	6446.45	2771974.00
3.4.2	All works above plinth level upto floor V level	610.00	cum	7250.05	4422531.00
	Sub-Total				
4	BRICK WORK				
4.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
4.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	30.00	cum	4751.65	142550.00
4.2	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
4.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	275.00	cum	5582.85	1535284.00
4.3	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
4.3.1	Cement mortar 1:4 (1 cement :4 coarse sand)	190.00	sqm	684.2	129998.00
4.4	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	190.00	sqm	56.85	10802.00
	Sub-Total				

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE        EE        SE

6	MARBLE AND GRANITE WORK ( If Thickness is between 18mm & 16mm rate will be reduced from schedule rates & for less than 16mm thickness sample will be rejected.				
6.1	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
6.1.1	Granite of any colour and shade				
6.1.1.1	Area of slab over 0.50 sqm	54.00	sqm	3113.3	168118.00
6.2	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
6.2.1	Granite work	20.00	metre	245.7	4914.00
6.3	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
6.3.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	828.00	sqm	2937.7	2432416.00
	Sub-Total				
7	WOOD AND P.V.C. WORK				

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE        EE        SE

7.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).				
7.1.1	Sal wood	3.00	cum	85386.950	256161.00
7.3	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
7.3.1	250x10 mm	6.00	each	313.2	1879.00
7.3.2	200x10 mm	6.00	each	251.5	1509.00
7.3.3	150x10 mm	198.00	each	193.45	38303.00
7.6	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868 ) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
7.6.1	300x10 mm	84.00	each	99.7	8375.00
7.7	Providing and fixing bright finished 100 mm mortice lock with 6 levers without pair of handles of approved quality for aluminium door, with necessary screws etc complete as per direction of Engineer-in-charge.	31.00	each	473.65	14683.00
	Sub-Total				
8	STEEL WORK				
8.1	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	250.00	kg	472.4	118100.00
	Sub-Total				

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE EE SE

9	FLOORING				
9.1	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).(Double Charge)				
9.1.1	Size of Tile 1000x1000 mm	820.00	sqm	2181.1	1788502.00
9.2	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
9.2.1	Size of Tile 1000x1000 mm	820.00	sqm	97.2	79704.00
	Sub-Total				
10	ROOFING				
10.1	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.				
10.1.1	110 mm diameter	43.00	metre	236.35	10163.00
10.2	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
10.2.1	Bend 87.5°				
10.2.1.1	110 mm bend	5.00	each	113.1	566.00
10.2.2	Shoe (Plain)				
10.2.2.1	110 mm Shoe	5.00	each	98.00	490.00

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE        EE        SE

10.3	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
10.3.1	110 mm	40.00	each	181.4	7256.00
10.4	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	5.00	each	40.9	205.00
	Sub-Total				
11	FINISHING				
11.1	12 mm cement plaster of mix :				
11.1.1	1:6 (1 cement: 6 fine sand)	950.00	sqm	160.35	152333.00
11.2	15 mm cement plaster on the rough side of single or half brick wall of mix :				
11.2.1	1:6 (1 cement: 6 fine sand)	900.00	sqm	185.2	166680.00
11.3	6 mm cement plaster of mix :				
11.3.1	1:3 (1 cement : 3 fine sand)	2100.00	sqm	143.8	301980.00
11.5	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications				
11.5.1	Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	1600.00	sqm	98.95	158320.00
11.6	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
11.6.1	Two or more coats on new work	1500.00	sqm	84.45	126675.00
11.7	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	3100.00	sqm	87.35	270785.00
	Sub-Total				
12	ROAD WORK				
12.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations	390.00	sqm	90.1	35139.00

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE        EE        SE

	etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.				
12.3	Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.	461.00	litre	46.45	21413.00
12.4	Providing and laying in position bitumen hot sealing compound for expansion joints etc.				0.00
12.4.1	Using grade 'A' sealing compound.	1200.00	Per cm depth per cm width per m length	2.2	2640.00
	Sub-Total				
13	SANITARY INSTALLATIONS				
13.1	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:- (a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer	13.00	each	2984.2	38795.00
13.2	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	6.00	each	254.8	1529.00
13.3	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
13.3.1	Flexible pipe				
13.3.1.1	32 mm dia	8.00	each	73.25	586.00
13.4	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	7.00	each	817.95	5726.00
13.5	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
13.5.1	Rectangular shape 1500x450 mm	2.00	each	1323.1	2646.00
13.6	Providing and fixing toilet paper holder :				
13.6.1	C.P. brass	6.00	each	385.35	2312.00

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE EE SE

13.7	Providing and fixing soil, waste and vent pipes :				
13.7.1	100 mm dia				
13.7.1.1	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	150.00	metre	925.55	138833.00
13.8	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
13.8.1	100 mm dia				
13.8.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	30.00	each	489.45	14684.00
13.9	Providing and fixing plain bend of required degree.				
13.9.1	100 mm dia				
13.9.1.1	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	30.00	each	307.1	9213.00
13.1	Providing and fixing single equal plain junction of required degree :				
13.10.1	100x100x100 mm				
13.10.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	20.00	each	503.4	10068.00
13.1	Providing and fixing terminal guard :				
13.11.1	100 mm				
13.11.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	15.00	each	355.85	5338.00
13.1	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
13.12.1	100 mm inlet and 100 mm outlet				
13.12.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	10.00	each	677.6	6776.00
13.1	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	6.00	each	9685.7	58114.00

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE EE SE



13.1	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	4.00	each	5162.2	20649.00
	Sub-Total				
15	DRAINAGE				
15.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				
15.1.1	250 mm diameter	100.00	metre	692.5	69250.00
15.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
15.2.1	250 mm diameter S.W. pipe	100.00	metre	1027.00	102700.00
15.3	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
15.3.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
15.3.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4.00	each	8634.10	34536.00
	Sub-Total				
16	ALUMINIUM WORK				

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE    EE    SE

16.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
16.1.1	For fixed portion				
16.1.1.1	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	1032.00	kg	391.8	404338.00
16.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
16.1.2.1	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	1283.00	kg	452.4	580429.00
16.2	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
16.2.1	With float glass panes of 5.50 mm thickness	100.00	sqm	1003.95	100395.00

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE EE SE

16.3	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.				
16.3.1	With stainless steel cover plate minimum 1.25 mm thickness	12.00	Each	2054.00	24648.00
16.4	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.				
16.4.1	Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar	64.00	each	520.7	33325.00
	Sub-Total				
17	WATER PROOFING				
17.2	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :				
17.2.1	Using rough Kota stone	277.00	sqm	1253.3	347164.00

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18	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	(a) Group 'C'	174	Point	1240	215760
19	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/recessed steel conduit as required.				
	(a)2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	300	Mtr	216	64800
	(b)4 X 1.5 sq. mm + 2 X 1.5 sq. mm earth wire	100	Mtr	291	29100
	(c)2 X 4 sq. mm + 1 X 4 sq. mm earth wire	400	Mtr	283	113200
	(d)2 X 6 sq. mm + 1 X 6 sq. mm earth wire	300	Mtr	388	116400
	(e)4 X 4 sq. mm + 2 X 4 sq. mm earth wire	350	Mtr	447	156450
	(f)4 X 6 sq. mm + 2 X 6 sq. mm earth wire	350	Mtr	620	217000
	(g)4 X 10 sq. mm + 2 X 6 sq. mm earth wire	250	Mtr	781	195250
	(h)4 X 16 sq. mm + 2 X 6 sq. mm earth wire	200	Mtr	1112	222400
20	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	12	Each	374	4488
21	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlet and 2 Nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	5	Each	603	3015
22	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 A & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as	47	Each	486	22842

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	required.				
23	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	17	Each	638	10846
24	Supplying and fixing following size/modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
	1 or 2 Module (75 mmX75 mm)	7	Each	209	1463
25	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	Telephone socket outlet	4	Each	115	460
	Information socket outlet cat 6	3	Each	450	1350
26	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
	(a) 20 mm	40	Mtr	151	6040
	(b) 75 mm	100	Mtr	176	17600
27	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
	(a) 2 Pair	150	Mtr	23	3450
28	Supplying and drawing of UTP 4 pair cat 6 LAN Cable in the existing surface/recessed Steel/ PVC conduit as required.				
	(a) 1 run of cable	80	Mtr	41	3280
	(b) 2 run of cable	30	Mtr	71	2130

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE EE SE

29	Supplying, installation, testing and commissioning of 42W, 6000 K surface mounting LED panel 600mmx600mm having system Luminous efficacy of not less than 100 lm/W complete with white powder coated extruded Al. housing, polycarbonate diffuser along with white reflector, integral electronic driver with output short circuit protection, surge voltage protection etc. on the existing ceiling i/c making connections with 1.5 sqmm copper cond.wire, earthing etc. complete as required .	55	Each	5274	290070
30	Supplying and fixing of surface mounted 9 watt LED mirror light fitting, with polycarbonate body and ribbed opal diffuser & integrated electronic driver including connection, testing and commissioning etc. complete as required.(in case of product not available in same wattage then fitting with same lumen output will be preferable over wattage for consideration)	5	Each	1188	5940
31	Supplying and fixing of maximum 15 watt providing minimum 1125 lumen output, Surface mounted Square Shape L.E.D Downlighter with suitable rating of driver and all other accessories with powder coated white finished housing i/c testing commissioning etc as required.(in case of product not available in same wattage then fitting with same lumen output will be preferable over wattage for consideration)	68	Each	2273	154564
32	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	41	Each	344	14104
33	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	3	Each	73	219
34	Supplying, Installation, testing and commissioning of 1200 mm sweep AC ceiling fan BEE 5 star rating, including pdg. & wiring the down rods of length upto 100 cm with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the existing fan box etc. as required.	41	Each	1949	79909

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35	Supplying and fixing of 300 mm sweep AC exhaust fan heavy duty having metallic blades complete with louvers & shutter i/c making holes to suit the size of above fan making good the damages, connection testing etc. as reqd.	2	Each	3217	6434
36	Supplying and fixing of 25Ltrs. Capacity vertical type energy efficient water geysers with thermocut facilities complete with copper connection testing and commissioning etc. as required.	2	Each	10303	20606
37	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, IP43, TPN MCCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs) (without MCCB) as incommen as required.				
	(a) 4 way (4 +12), Double door (with provision of MCCB incommen)	2	Each	9971	19942
	(b) 8 way (4 + 24), Double door (with provision of MCB incommen)	3	Each	10524	31572
38	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	12 way, Double door	2	Each	1377	2754
39	Supplying and fixing metal 4 way MCCB sheet steel enclosure on surface/ recess along with 63/100 A, FP MCCB 25 KA complete with connections, testing and commissioning etc. as required.	5	Each	10644	53220
40	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and • commissioning etc. as required.				
	(a) Single Pole	80	Each	207	16560

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	(b) Single pole and neutral	2	Each	532	1064
	(c) 125 A Triple pole	6	Each	7533	45198
	(d) 100 A Triple pole	6	Each	6856	41136
	(e) 32 A Triple pole	3	Each	837	2511
41	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	1	Each	2976	2976
42	Supplying and fixing 30 A, 240 V, SPN Industrial type socketoutlet, with 2 pole and earth, metal enclosed plug top alongwith 30 A, "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	6	Each	1172	7032
43	Supplying and fixing Cable End Box (Loose wire box) (IP 43) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with testing and commissioning etc. as required.				
a	For 12 way, Double door SPN MCBDB	2	Each	507	1014
44	Supplying and fixing Cable End Box (Loose 'wire box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required. •	2	Each	518	1036
45	Supplying and fixing Cable End Box (Loose wire box)(IP 43) suitable for following triple pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.				
	(A) 8 way double door TPNMCBDB	3	Each	871	2613

CORRECTION NIL INSERTION NILCUTTING NIL OVERWRITING NIL AE EE SE



46	Earthing with G.I. earth plate 600mm X 600mm X 6mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	6	Set	5176	31056
47	Providing and fixing 25mm X 5mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	30	Mtr	420	12600
48	Providing and fixing 25mm X 5mm G.I. strip on surface or in recess for connections etc. as required.	30	Mtr	154	4620
49	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board/ MCBDB including drilling holes in cubicle panel, making connections, etc. as required.				
a	100 A, 16 kA, TPMCCB	1	Each	3849	3849
b	250 A, 35 KA TP MCCB	1	Each	12172	12172
50	Supplying, Erection of outdoor type totally enclosed weatherproof compartmentalised joint feeder pillar, fabricated from 2.00mm thick CRCA /M.S. sheet with base frame fabricated from 40mmx40mmx5mm thick angle iron, suitable for 415V 50HZ A.C. supply with detachable gland plate at bottom front openable double leaf door hinged type with locking key type arrangement dust and virmin proof complete with busbar chamber with 1 nos. of 4 strips Al. busbar of upto 400A capacity and M.S. cover covering the MCCB/MCB's and Al. strips bus bar section etc. as required (only MCCB's/MCB knobs shall be visual) including interconnections with FRLS insulated copper conductor wire of suitable size earthing and powder coated paint etc. as required.(Manufacture having ISO 9001 certification & CPRI approved.) (Deep 400 mm ) - 2 Jobs	2	sqmtr	20000	40000
a	100 mm dia.	120	meter	990	118800

CORRECTION   NIL   INSERTION   NIL  CUTTING   NIL   OVERWRITING   NIL   AE        EE        SE

51	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc..direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.				
b	120 mm dia (OD-120 mm & ID-103 mm nominal)	1080	Mtr	274	295920
53	Provision for suitable size feeder pilaar/Cubical Panel with accessories (MCCBs/MCBs) etc as regd.	2	Set	200000	400000
					33443825.00

	Total				33443825.00
	Add Cost Index @19.61% (On Estimate Total 53,664,967.00 )				6558334.00
	Total				<b>40002159.00</b>

CORRECTION   NIL   INSERTION   NIL  

CUTTING   NIL   OVERWRITING   NIL   AE EE SE

## CLAUSES OF CONTRACT

### CLAUSE 1

#### Performance Guarantee

- (i) The contractor shall submit an irrevocable Performance Guarantee of 5% (Five percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period as specified in schedule 'F' on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of 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 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 form annexed hereto. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Government to make good the deficit.
- (ii) The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.
- (iii) The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
  - (a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.
  - (b) Failure by the contractor to pay President of India any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-Charge.
- (iv) In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the President of India.
- (v) On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion certificate shall be recorded by the Engineer-in-Charge. The provisional certificate shall have appended with a list of outstanding balance item of work that need to be completed in accordance with the provisions of the contract.

This provisional completion certificate shall be recorded by the concerned Engineer-in-charge with the approval of Project Manager / Chief Project Manager /Superintending

Engineer. After recording of the provisional Completion Certificate for the work by the competent authority, the 80 % of performance guarantee shall be returned to the contractor, without any interest.

However in case of contracts involving Maintenance of building and services / any other work after construction of same building and services/ other work, then 40% of performance guarantee shall be returned to the contractor, without any interest after recording the provisional Completion certificate.

#### CLAUSE 1 A

#### Recovery of Security Deposit

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit Government at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 2.5% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 2.5% of the tendered value of the work. Such deductions will be made and held by Government by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Government Securities or fixed deposit receipts. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Government to make good the deficit.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due to or may become due to the contractor by Government on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Banks or Government Securities (if deposited for more than 12 months) endorsed in favour of the Engineer-in-Charge, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills and the final bill of the contractor at the rates mentioned above.

The security deposit as deducted above can be released against bank guarantee issued by a scheduled bank, on its accumulations to a minimum of Rs. 5 lac subject to the condition that amount of such bank guarantee, except last one, shall not be less than Rs. 5 lac. Provided further that the validity of bank guarantee including the one given against the earnest money shall be in conformity with provisions contained in clause 17 which shall be extended from time to time depending upon extension of contract granted under provisions of clause 2 and clause 5.

In case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.

**Note-1:** Government papers tendered as security will be taken at 5% (five per cent) below its market price or at its face value, whichever is less. The market price of Government paper would be ascertained by the Divisional Officer at the time of collection of interest and the amount of interest to the extent of deficiency in value of the Government paper will be withheld if necessary.

**Note-2:** Government Securities will include all forms of Securities mentioned in Rule No. 274 of the G.F. Rules except fidelity bond. This will be subject to the observance of the condition mentioned under the rule against each form of security.

**Note-3:** Note 1 & 2 above shall be applicable for both clause 1 and 1A

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**CLAUSE 2****Compensation  
for Delay**

If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or justified extended date of completion, as per clause 5 (excluding any extension under Clause 5.5) as well as any extension granted under clauses 12 and 15, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' may decide on the amount of Tendered Value of the work for every completed day/month (as determined) that the progress remains below that specified in Clause 5 or that the work remains incomplete.

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

- |                                       |   |
|---------------------------------------|---|
| (i) Compensation<br>for delay of work | @ 1 % per month of delay<br>to be computed on per day basis |
|---------------------------------------|---|

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10 % of the Tendered Value of work or of the Tendered Value of the Sectional part of work as mentioned in Schedule 'F' for which a separate period of completion is originally given.

In case no compensation has been decided by the authority in Schedule 'F' during the progress of work, this shall be no waiver of right to levy compensation by the said authority if the work remains incomplete on final justified extended date of completion. If the Engineer in Charge decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period. If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under clause 12, the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under sub clause 5.2, the contractor shall be liable to pay compensation for such delay.

Provided that compensation during the progress of work before the justified extended date of completion for delay under this clause shall be for non-achievement of sectional completion or part handing over of work on stipulated/justified extended date for such part work or if delay affects any other works/services. This is without prejudice to right of action by the Engineer in Charge under clause 3 for delay in performance and claim of compensation under that clause.

In case action under clause 2 has not been finalized and the work has been determined under clause 3, the right of action under this clause shall remain post determination of contract but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the authority in Schedule F, after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after of determination of contract.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in schedule F, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied as above. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

**Incentive for early completion**

**CLAUSE 2A**

In case, the contractor completes the work ahead of stipulated date of completion or justified extended date of completion as determined under clauses 5.3, 12 & 15, a bonus @ 1% (one per cent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5% (five per cent) of the tendered value. Provided that justified time for extra work shall be calculated on pro-rata basis as cost of extra work X stipulated period /tendered value. The amount of bonus, if payable, shall be paid along with final bill after completion of work. Provided always that provision of the Clause 2A shall be applicable only when so provided in 'Schedule F'.

**When Contract can be Determined**

**CLAUSE 3**

Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- (i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- (iii) If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date, on or before such date of completion; and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer-in-Charge the contractor will be unable to complete the same or does not complete the same within the period specified.
- (iv) If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- (v) If the contractor shall offer or give or agree to give to any person in Government service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Government.
- (vi) If the contractor shall enter into a contract with Government in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.
- (vii) If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.
- (viii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under

any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.

- (ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) If the contractor assigns, (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the President of India shall have powers:

- (a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government.
- (b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

### CLAUSE 3A

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is more, either party may close the contract by giving notice to the other party stating reasons. In such eventuality, the Performance Guarantee of the contractor shall be refunded within following time limits :

- (i) If the Tendered value of work is up to Rs. 45 lac : 15 days.
- (ii) If the Tendered value of work is more than Rs. 45 lac and up to Rs. 2.5 Crore : 21 days.
- (iii) If the Tendered value of work exceeds Rs. 2.5 Crore : 30 days.

Neither party shall claim any compensation for such eventuality. This clause is not applicable for any breach of the contract by either party.

**Contractor liable to pay Compensation even if action not taken under Clause 3**

#### **CLAUSE 4**

In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause-3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

#### **CLAUSE 5**

**Time and Extension for Delay**

The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site notified by the Engineer-in-Charge, whichever is later. However, the handing over of site by the Engineer in Charge, in full or in part (if so provided in contract), shall be completed within two months from issue of acceptance letter. If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited by the Engineer in Charge and shall be absolutely at the disposal of the Government without prejudice to any other right or remedy available in law.

**5.1 As soon as possible but within twenty one days of award of work and in consideration of**

- a) Schedule of handing over of site as specified in the Schedule 'F'
- b) Schedule of issue of designs as specified in the Schedule 'F'
- (i) The Contractor shall submit a Time and Progress Chart for each mile stone. The Engineer-in-Charge may within 30 days thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-Charge. The work programme shall include all details of balance drawings and decisions required to complete the contract with specific dates by which these details are required by contractor without causing any delay in execution of the work. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special



jobs for which a separate programme has been agreed upon) complete the work as per mile stones given in Schedule 'F'.

- (ii) In case of non submission of construction programme by the contractor the program approved by the Engineer-in-Charge shall be deemed to be final.
- (iii) The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.
- (iv) The contractor shall submit the Time and Progress Chart and progress report using the mutually agreed software or in other format decided by Engineer-in-Charge for the work done during previous month to the Engineer-in-charge on or before 5th day of each month failing which a recovery Rs. 2500/- (for works costing upto Rs. 20 Crores) / Rs. 5000/-(for works costing more than Rs. 20 Crores) shall be made on per week or part basis in case of delay in submission of the monthly progress report.

**5.2 If the work(s) be delayed by:-**

- (i) force majeure, or
- (ii) abnormally bad weather, or
- (iii) serious loss or damage by fire, or
- (iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- (v) delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
- (vi) non-availability of stores, which are the responsibility of Government to supply or
- (vii) non-availability or break down of tools and Plant to be supplied or supplied by Government or
- (viii) any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge for entry in the hindrance register (physical or web-based as prescribed in Schedule 'F' but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in sub clause 5.2.

- 5.3** In case the work is hindered by any reasons, in the opinion of the contractor, by the Department or for someone for whose action the Department is responsible, the contractor may immediately give notice thereof in writing to the Engineer-in-Charge in the same manner as prescribed under sub Clause 5.2 seeking extension of time or rescheduling of milestone/s. The authority as indicated in Schedule 'F' shall, if justified, give a fair and reasonable extension of time and reschedule the mile stones for completion of work after due consideration of the same within 30 days of receipt of such request. In event of non application by the contractor for extension of time E-in-C after affording opportunity to the contractor may give, supported with a programme, a fair and reasonable extension within a reasonable period of occurrence of the event.

Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law; provided further that for concurrent delays under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2 the contractor shall be entitled to only extension of time and no damages.

- 5.4** Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed forms i.e. Form of application by the contractor for seeking
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rescheduling of milestones (Appendix-XVI) or Form of application by the contractor for seeking extension of time (Appendix -XVII) respectively to the authority as indicated in Schedule 'F'. The Contractor shall indicate in such a request the period by which rescheduling of milestone/ s or extension of time is desired.

With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme which shall include all details of pending drawings and decisions required to complete the contract and also the target dates by which these details should be available without causing any delay in execution of the work. A recovery as specified in Schedule 'F' shall be made on per day basis in case of delay in submission of the revised programme.

**5.4.1** In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time for completion of work or reschedule the milestones. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 30 days of the date of receipt of such request from the Contractor in prescribed form. In event of non application by the contractor for extension of time E-in-C after affording opportunity to the contractor, may give, supported with a programme (as specified under 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event.

**5.5** In case the work is delayed by any reasons, in the opinion of the Engineer-in-Charge, by the contractor for reasons beyond the events mentioned in clause 5.2 or clause 5.3 or clause 5.4 and beyond the justified extended date; without prejudice to right to take action under Clause 3, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.

#### **CLAUSE 6**

##### **Measurements of Work Done**

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.

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

All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.

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

Except where any general or detailed description of the work expressly shows to the contrary,

measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.

The contractor shall give, not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

#### **CLAUSE 6A**

**Computerized  
Measurement  
Book**

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Divisional Office records, and allotted a number as per the Register of Computerised MBs. This should be done before the corresponding bill is submitted to the Division Office for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.

The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the "bill. Thereafter, this bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

**Payment on  
Intermediate  
Certificate to be  
Regarded as  
Advances**

**CLAUSE 7**

No payment No payment shall be made for work, estimated to cost Rs. One lac or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. One lac, the interim or running account bills shall be

submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Department in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to the Engineer-in-Charge or his Asstt. Engineer together with the account of the material issued by the department, or dismantled materials, if any. In the case of works outside the headquarters of the Engineer-in-Charge, the period of ten working days will be extended to fifteen working days. In case of delay in payment of intermediate bills after 45 days of submission of bill by the contractor provided the bill submitted by the contractor found to be in order, a simple interest @ 10% per annum shall be paid to the contractor from the date of expiry of prescribed time limit which will be compounded on yearly basis.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Asstt. Engineer to the effect that the work has been completed up to the level in question make interim advance payments without detailed measurements for work done (other than foundations, items to be covered under finishing items) up to lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill to be submitted by the contractor within 10 days of the interim payment. In case of delay in submission of bill by the contractor a simple interest @ 10% per annum shall be paid to the Government from the date of expiry of prescribed time limit which will be compounded on yearly basis.

**Payments in  
composite  
Contracts**

In case of composite tenders, running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor component shall be made by the Engineer-in-Charge of the discipline of minor component directly to the main contractor.

In case main contractor fails to make the payment to the contractor associated by him within 15 days of receipt of each running account payment, then on the written complaint of contractor associated for such minor component, Engineer-in-Charge of minor component shall serve the show cause to the main contractor and if reply of main contractor either not received or

found unsatisfactory, he may make the payment directly to the contractor associated for minor component, as per the terms and conditions of the agreement drawn between main contractor and associate contractor fixed by him. Such payment made to the associate contractor shall be recovered by Engineer-in-Charge of major or minor component from the next R/A/ final bill due to main contractor as the case may be.

#### **CLAUSE 7A**

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

#### **CLAUSE 8**

**Completion  
Certificate and  
Completion Plans**

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose off the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

#### **CLAUSE 8A**

**Contractor to Keep  
Site Clean**

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

#### **CLAUSE 8B**

**Completion Plans  
to be Submitted by  
the Contractor**

The contractor shall submit completion plan 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 limit prescribed in Schedule F whichever is more as may be fixed by the Superintending Engineer concerned and in this respect the decision of the Superintending Engineer shall be final and binding on the contractor.

The contractor shall submit completion plan 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.

**CLAUSE 9**

**Payment of  
Final Bill**

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

- (i) If the Tendered value of work is up to Rs. 45 lac : 2 months
- (ii) If the Tendered value of work is more than Rs.45 lac and up to Rs. 2.5 Crore : 3 months
- (iii) If the Tendered value of work exceeds Rs. 2.5 Crore : 6 months

In case of delay in payment of final bills after prescribed time limit, a simple interest @ 10% per annum shall be paid to the contractor from the date of expiry of prescribed time limit which will be compounded on yearly basis, provided the final bill submitted by the contractor found to be in order.

**CLAUSE 9A**

**Payment of  
Contractor's  
Bills to Banks**

Payments due to the contractor may, if so desired by him, be made to his bank, registered financial, co-operative or thrift societies or recognized financial institutions instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge (1) an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank; registered financial, co-operative or thrift societies or recognized financial institutions to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by Government or his signature on the bill or other claim preferred against Government before settlement by the Engineer-in-Charge of the account or claim by payment to the bank, registered financial, co-operative or thrift societies or recognized financial institutions. While the receipt given by such banks; registered financial, co-operative or thrift societies or recognized financial institutions shall constitute a full and sufficient discharge for the payment, the contractor shall whenever possible present his bills duly receipted and discharged through his bank, registered financial, co-operative or thrift societies or recognized financial institutions.

Nothing herein contained shall operate to create in favour of the bank; registered financial, co-operative or thrift societies or recognized financial institutions any rights or equities visa-vis the President of India.

**CLAUSE 10**

**Materials supplied  
by Government**

Materials which Government will supply are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The

contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) materialwise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the CPWA Code) all stores/materials so supplied to the contractor or procured with the assistance of the Government shall remain the absolute property of Government and the contractor shall be the trustee of the stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/materials remaining unused shall be returned to the Engineer-in-Charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/materials the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charges, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licences or permit and/or for criminal breach of trust, be liable to Government for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Government within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any



such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

#### **CLAUSE 10A**

#### **Materials to be provided by the Contractor**

The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the Government.

The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F.

#### **Secured Advance on Non-perishable Materials**

#### **CLAUSE 10B**

- (i) The contractor, on signing an indenture in the form in Annexure XVIII by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work up to

75% of the assessed value of any materials which are in the opinion of the Engineer-in-Charge non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-Charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-Charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

**Mobilisation  
Advance**

- (ii) Mobilization advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in two or more installments to be determined by the Engineer-in-Charge at his sole discretion. The first installment of such advance shall be released by the Engineer-in-Charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent installments shall be released by the Engineer-in-Charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier installment to the entire satisfaction of the Engineer-in-Charge.

Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bonds not more than 6 in number from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the period till recovery of advance. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.

Provided always that provision of Clause 10 B (ii) shall be applicable only when so provided in 'Schedule F'.

**Plant Machinery &  
Shuttering Material  
Advance**

- (iii) An advance for plant, machinery & shuttering material required for the work and brought to site by the Contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such plant and machinery which in the opinion of the Engineer-in-Charge will add to the expeditious execution of work and improve the quality of work. The amount of advance shall be restricted to 5% percent of the tender value. In the case of new plant and equipment to be purchased for the work, the advance shall be restricted to 90% of the price of such new plant and equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Engineer-in-Charge. In the case of second hand and used plants and equipment, the amount of such advance shall be limited to 50% of the depreciated value of plant and equipment as may be decided by the Engineer-in-Charge. The contractor shall, if so required by the Engineer-in-Charge, submit the statement of value of such old plant and equipment duly approved by a Registered Valuer recognized by the Central Board of Direct Taxes under the Income-Tax Act, 1961. No such advance shall be paid on any plant and equipment of perishable nature and on any plant and equipment of a value less than Rs. 50,000/- Seventy five per cent of such amount of advance shall be paid after the plant & equipment is brought to site and balance twenty five percent on successfully commissioning the same.

Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following:

1. Leasing company which gives certificate of agreeing to lease equipment to the contractor.
2. Engineer in Charge, and
3. The contractor.

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Engineer-in-Charge to be necessary for the works; (b) and are in working order and are maintained in working order; (c) hypothecated to the Government as specified by the Engineer-in-Charge before the payment of advance is released. The contractor shall not be permitted to remove from the site such hypothecated plant and equipment without the prior written permission of the Engineer-in-Charge. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation failing which such advance shall be entirely recovered in lump sum. For this purpose, steel scaffolding and form work shall be treated as plant and equipment.

The contractor shall insure the Plant and Machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amounts not recovered from the insurer will be borne by the contractor.

**Interest &  
Recovery**

- (iv) The mobilization advance and plant and machinery advance in (ii) & (iii) above bear simple interest at the rate of 10 per cent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment.
- (v) If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Engineer-in-Charge.

**CLAUSE 10C**

**Payment on  
Account of Increase  
in Prices/Wages due  
to Statutory  
Order(s)**

If after submission of the tender, if the price of any material incorporated in the work (excluding the material covered under clause 10 CA and not been a material supply for a Engineer in charge's store in accordance with clause 10 therefore )and/ or wages of labour increases as a direct result of the coming into force of any fresh law or statutory rule or order (but not due to any variation of rate in GST applicable on such material(s) being considered under this clause) beyond the prices/wages prevailing at the time of the last stipulated date of receipt of tenders including extensions, if any, for the work during contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, then the amount of the contract shall accordingly be varied.

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rules or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty), Government shall in respect of materials incorporated in the works (excluding the materials covered under

Clause 10CA and not being material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2.

Engineer-in-Charge shall call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials and/or wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

For this purpose, the labour component of 85% of the value of the work executed during period under consideration shall not exceed the percentage as specified in Schedule F, of the value of work done during that period and the increase/decrease in labour shall be considered on the minimum daily wages in rupees of any unskilled mazdoor, fixed under any law, statutory rule or order. The cost of work for which escalation is applicable (W) is same as cost of work done worked out as indicated in sub-para (ii) of clause 10 CC except the amount of full assessed value of secured Advance.

#### CLAUSE 10 CA

**Payment due to variation in prices of materials after receipt of tender**

If after submission of the tender, the price of materials specified in Schedule F increases/decreases beyond the base price(s) as indicated in Schedule F for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of Contract including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2.

However for work done/during the justified period extended as above, it will be limited to indices prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on pro-rata basis only as cost of extra work x stipulated period/tendered cost).

The increase/decrease in prices of cement, steel reinforcement, structural steel and POL shall be determined by the Price indices issued by the Director General, CPWD. For other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry. Base price for cement, steel reinforcement, structural steel and POL shall be as issued under the authority of Director General CPWD applicable for Delhi including Noida, Gurgaon, Faridabad & Ghaziabad and for other places as issued under the authority of Zonal Chief Engineer, CPWD and base price of other materials issued by concerned Zonal chief Engineer and as indicated in Schedule 'F'. In case, price index of a particular material is not issued by Ministry of Commerce and Industry, then the price index of nearest similar material as indicated in Schedule 'F' shall be followed.

The amount of the contract shall accordingly be varied for all such materials and will be worked out as per the formula given below for individual material:-

Adjustment for component of individual material

$$V = P \times Q \times \frac{C_1 - C_0}{C_0}$$

where,

$C_0$

V = Variation in material cost i.e. increase or decrease in the amount of rupees to be paid or recovered.

P = Base Price of material as issued under authority of DG, CPWD or concerned Zonal Chief Engineer and as indicated in Schedule "F".

For Projects and Original Works

Q = Quantity of material brought at site for bonafide use in the works since previous bill excluding any such quantity consumed in the deviated quantity of items beyond deviation limit and extra /substituted item, paid/to be paid at rates derived on the basis of market rate under clause 12.2.

For Maintenance Works

Q = Quantity of material brought at site for bonafide use in the works since previous bill including any such quantity consumed in the deviated quantity of items beyond deviation limit paid at agreement rate and extra /substituted item being scheduled items, but excluding non schedule extra /substituted item paid/to be paid at market rate under clause 12.2.

Clo = Price index for cement, steel reinforcement bars structural steel and POL as issued by the DG, CPWD and corresponding to the time of base price of respective material indicated in Schedule 'F'. For other items, if any, provided in Schedule 'F', All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce and corresponding to the time of base price of respective material indicated in Schedule 'F'.

CI = Price index for cement, steel reinforcement bars, structural steel and POL as issued under the authority of DG, CPWD for period under consideration. For other items, if any, provided in Schedule 'F', All India Wholesale Price Index for the material for period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and Commerce.

Note: (i) In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of extra work x stipulated period/ tendered cost) shall be considered.

Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of Materials covered in this Clause.

(ii) If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at the time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher.

(iii) Cement mentioned wherever in this clause includes Cement component used in RMC brought at site from outside approved RMC plants, if any.

(iv) The date wise record of ready mix concrete shall be kept in a register and the cement consumption for the same shall be calculated accordingly.

- (v) If built-up steel items are brought at site from workshop, then the variation shall be paid for the structural steel up to the period when the built up item/finished product is brought at site.

**Payment due to Increase/Decrease in Prices/Wages (excluding materials covered under clause 10 CA) after Receipt of Tender for Works**

**CLAUSE 10 CC**

If the prices of materials (not being materials supplied or services rendered at fixed prices by the department in accordance with clause 10 & 34 thereof) and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule F. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:-

- (i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.
- (ii) The cost of work on which escalation will be payable shall be reckoned as below :
- |  |     |
|--|-----|
| (a) Gross value of work done up to this quarter :  | (A) |
| (b) Gross value of work done up to the last quarter :  | (B) |
| (c) Gross value of work done since previous quarter (A-B)  | (C) |
| (d) Full assessed value of Secured Advance (excluding materials Covered under Clause 10 CA) fresh paid in this quarter : | (D) |
| (e) Full assessed value of Secured Advance (excluding materials Covered under Clause 10 CA) recovered in this quarter :  | (E) |
| (f) Full assessed value of Secured Advance for which escalation Payable in this quarter (D-E):                           | (F) |
| (g) Advance payment made during this quarter:  | (G) |
| (h) Advance payment recovered during this quarter:   | (H) |
| (i) Advance payment for which escalation is payable in this Quarter(G-H):  | (I) |
| (j) Extra items/deviated quantities of items paid as per Clause 12 Based on prevailing market rates during this quarter: | (J) |
- Then,  $M = C+F+I-J$
- $N = 0.85 M$
- |  |     |
|--|-----|
| (k) Less cost of material supplied by the department as per Clause 10 and recovered during the quarter | (K) |
| (l) Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter  | (L) |

**Cost of work for which escalation is applicable:**

$$W = N - (K + L)$$

- (iii) Components for materials (except cement, reinforcement bars, structural steel, POL or other materials covered under clause 10 CA) labour, etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'F'. The decision of the Engineer-in-Charge in working out such percentage shall be binding on the contractors.
- (iv) The compensation for escalation for other materials (excluding cement, reinforcement bars, structural steel, POL or other materials covered under clause 10 CA) shall be

worked as per the formula given below:-

Adjustment for civil component (except cement, structural steel, reinforcement bars, POL and other materials covered under clause 10CA) / electrical component of construction 'Materials'

$$V_m = W \times \frac{X_m}{100} \times \frac{M_I - M_{I_0}}{M_{I_0}}$$

- $V_m$  = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.
- $W$  = Cost of Work done worked out as indicated in sub-para (ii) of Clause 10CC.
- $X_m$  = Component of 'materials' (except cement, structural steel, reinforcement bars POL and other materials covered under clause 10CA) expressed as percent of the total value of work.
- $M_I$  = All India Wholesale Price Index for civil component/electrical component\* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/ Group Items for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group Items. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of updated stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of extra work x stipulated period/ tendered cost, shall be considered.)
- $M_{I_0}$  = All India Wholesale Price Index for civil component/electrical component\* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/Group Items valid on the last stipulated date of receipt of tender including extension, if any, as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group items.

**\*Note:** relevant component only will be applicable.

- (v) The following principles shall be followed while working out the indices mentioned in para (iv) above.
- (a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The dates of preparation of bills as finally entered in the Measurement Book by the Assistant Engineer/ date of submission of bill finally by the contractor to the department in case of computerised measurement books shall be the guiding factor to decide the bills relevant to the quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which tender was accepted) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.
- (b) The index (MI/FI etc.) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such installment of payment, is less than three months, the index MI and FI shall be the average of the indices for the months falling within that period.

- (vi) The compensation for escalation for labour shall be worked out as per the formula given below:-

$$VL = W \times \frac{Y}{100} \times \frac{LI - LI_0}{LI_0}$$

- VL : Variation in labour cost i.e. amount of increase or decrease in rupees to be paid or recovered.
- W : Value of work done, worked out as indicated in sub-para (ii) above.
- Y : Component of labour expressed as a percentage of the total value of the work.
- LI : Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to updated stipulated date of Completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of extra work x stipulated period/ tendered cost, shall be considered.)
- LI<sub>0</sub> : Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extension, if any.

- (vii) The following principles will be followed while working out the compensation as per sub-para (vi) above.
- The minimum wage of an unskilled mazdoor mentioned in sub-para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.
  - The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;
  - Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.
- (viii) In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:
- no such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.
  - the Engineer-in-Charge shall otherwise be entitled to lay down the procedure by which the provision of this sub-clause shall be implemented from time to time and the decision of the Engineer-in-Charge in this behalf shall be final and binding on the contractor.



(ix) Provided always that:-

- (a) Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable but provisions of clause 10CA will be applicable.
- (b) Where provisions of clause 10CC are not applicable, provisions of clause 10C and 10CA will become applicable.

**Note: Updated stipulated date of completion (period of completion plus extra time for extra work for compensation under clause 10C, 10CA and 10CC**

The factor of 1.25 taken into account for calculating the extra time under clause 12.1 for extra time shall not be considered while calculating the updated stipulated date of completion for this purpose in clause 10C, clause 10CA, and clause 10CC.

**CLAUSE 10 D**

**Dismantled  
Material Govt.  
Property**

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as Government's property and such materials shall be disposed off to the best advantage of Government according to the instructions in writing issued by the Engineer-in-Charge.

**CLAUSE 11**

**Work to be  
Executed in  
Accordance with  
Specifications,  
Drawings, Orders  
etc.**

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications of Central Public Works Department specified in Schedule 'F' or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

**CLAUSE 12 :**

**Deviations/  
Variations Extent  
and Pricing**

The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

The completion cost of any agreement for Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration shall not exceed 1.25 times of Tendered amount. Any further deviation beyond this limit upto 1.5 times of tendered amount shall be approved by Chief Engineer with recorded reason and in exceptional case, ADG shall have full power to approve the deviation beyond 1.50 times of tendered amount with recorded reason and take suitable corrective action.

**12.1** The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows :

- (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
- (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

**Deviation, Extra  
Items and Pricing**

**12.2 A.** For Project and original works:

In the case of extra item(s) (items that are completely new, and are in addition to the items contained in the contract), the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, which shall include invoices, vouchers etc. and Manufacturer's specification for the work failing which the rate approved later by the Engineer-in-charge shall be binding and the Engineer-in-Charge shall within prescribed time limit of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined, failing which it will be deemed to have been approved.

**B.** For Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration:

In the case of Extra Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above/ below quoted contract amount.

Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.

**A.** For Project and original works:

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para.

- (a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

**B.** For Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration:

In the case of substitute Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above/ below quoted contract amount. Payment of substitute items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.

**Deviation,  
Substituted Items,  
Pricing**

**Deviation, Deviated  
Quantities, Pricing**

**A. For Project and original works:**

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within prescribed time limit of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

**B. For Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration:**

In the case of contract items, which exceed the limits laid down in schedule F, the contractor shall be paid rates specified in the schedule of quantities.

The prescribed time limits for finalising rates for Extra Item(s), Substitute Item(s) and Deviated Quantities of contract items is within 30 days after submission of proposal by the contractor without observation of the Engineer-in-Charge.

**12.3 A. For Project and original works:**

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

**B. For Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration:**

In case of decrease in the rates prevailing in the market of items for the work in excess of the limits laid down in Schedule F, the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

**12.4** The contractor shall send to the Engineer-in-Charge once every three months, an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Superintending Engineer may authorise consideration of such claims on merits.

**12.5** For the purpose of operation of Schedule "F", the following works shall be treated as works relating to foundation unless & otherwise defined in the contract:

- (i) For Buildings : All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.
- (ii) For abutments, piers and well staining : All works up to 1.2 m above the bed level.
- (iii) For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/ tanks and other elevated structures : All works up to 1.2 metres above the ground level.

- (iv) For reservoirs/tanks (other than overhead reservoirs/tanks) : All works up to 1.2 metres above the ground level.
- (v) For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.
- (vi) For Roads, all items of excavation and filling including treatment of sub base.

**12.6** Any operation incidental to or necessarily has to be in contemplation of tenderer while filing tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

#### **CLAUSE 13**

#### **Foreclosure of contract due to Abandonment or Reduction in Scope of Work**

If at any time after acceptance of the tender or during the progress of work, the purpose or object for which the work is being done changes due to any supervening cause and as a result of which the work has to be abandoned or reduced in scope the Engineer-in-Charge shall give notice in writing to that effect to the contractor stating the decision as well as the cause for such decision and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates, full amount for works executed at site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure;

- (i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.
- (ii) Government shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however Government shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by Government, cost of such materials as detailed by Engineer-in-Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.
- (iii) If any materials supplied by Government are rendered surplus, the same except normal wastage shall be returned by the contractor to Government at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to Government stores, if so required by Government, shall be paid.
- (iv) Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.
- (v) Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer-in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the Government as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Government from the contractor under the terms of the contract.

In the event of action being taken under Clause 13 to reduce the scope of work, the contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance tendered amount and initially valid up to the extended date of completion or stipulated date of completion if no extension has been granted plus 60 days beyond that. Wherever such a fresh Performance Guarantee is furnished by the contractor the Engineer-in-Charge may return the previous Performance Guarantee.

#### **Clause 14**

#### **Carrying out part work at risk & cost of contractor**

If contractor:

- (i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or
- (ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or

    Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.

The Engineer-in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:

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

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by Government because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by Government in completing the part

work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by Government as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Government in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

#### CLAUSE 15

#### Suspension of Work

(i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:

- (a) on account of any default on the part of the contractor or;
- (b) for proper execution of the works or part thereof for reasons other than the default of the contractor; or
- (c) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

(ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

- (a) the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;
- (b) If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days.

(iii) If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the

contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by Government or where it affects whole of the works, as an abandonment of the works by Government, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by Government, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within 30 days of the expiry of the period of 3 months.

#### **CLAUSE 15 A**

**Compensation in case of Delay of Supply of Material by Govt.**

The contractor shall not be entitled to claim any compensation from Government for the loss suffered by him on account of delay by Government in the supply of materials in schedule 'B' where such delay is covered by the difficulties relating to the supply of wagons, force majeure or any reasonable cause beyond the control of the Government.

This clause 15 A will not be applicable for works where no material is stipulated.

#### **CLAUSE 16**

**Action in case Work not done as per Specifications**

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-Charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the Department or any organization engaged by the Department for Quality Assurance and of the Chief Technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer-in-Charge or his authorized subordinates incharge of the work or to the Chief Engineer in charge of Quality Assurance or his subordinate officers or the officers of the organization engaged by the Department for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of work costing Rs. 10 Lac and below except road work) of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the authority specified in

schedule 'F' may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

#### **CLAUSE 17**

**Contractor Liable  
for Damages,  
defects during  
defect liability  
period**

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work, if in the opinion of the Engineer-in-Charge, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

In case of Maintenance and Operation works of E&M services, the security deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract whichever is earlier.

#### **CLAUSE 18**

**Contractor to  
Supply Tools  
& Plants etc.**

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), machinery, tools & plants as specified in schedule F. In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.



<b>Recovery of Compensation paid to Workmen</b>	<p><b>CLAUSE 18 A</b></p> <p>In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, Government is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Government will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Government under sub-section (2) of Section 12, of the said Act, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise. Government shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs for which Government might become liable in consequence of contesting such claim.</p>
<b>Ensuring Payment and Amenities to Workers if Contractor fails</b>	<p><b>CLAUSE 18 B</b></p> <p>In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, Government is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the C.P.W.D. Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by C.P.W.D. Contractors, Government will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Government under sub-section(2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise Government shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Government full security for all costs for which Government might become liable in contesting such claim.</p>
<b>Labour Laws to be complied by the Contractor</b>	<p><b>CLAUSE 19</b></p> <p>The contractor shall obtain a valid licence under the Contract Labour (R&amp;A) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.</p> <p>The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.</p> <p>The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment &amp; Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.</p> <p>Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.</p>
	<p><b>CLAUSE 19A</b></p> <p>No labour below the age of fourteen years shall be employed on the work.</p>
<b>Payment of Wages</b>	<p><b>CLAUSE 19 B</b></p> <p>Payment of wages:</p> <p>(i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's</p>

Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.

- (ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.
- (iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Central Public Works Department contractor's Labour Regulations made by Government from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- (iv) (a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
- (b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned.  
  
In the case of Union Territory of Delhi, however, as the all inclusive minimum daily wages fixed under Notification of the Delhi Administration No.F.12(162)MWO/DAB/ 43884-91, dated 31-12-1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.
- (v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time.
- (vi) The contractor shall indemnify and keep indemnified Government against payments to be made under and for the observance of the laws aforesaid and the C.P.W.D. Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
- (vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- (viii) Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.

- (ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

**CLAUSE 19 C**

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per C.P.W.D. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs.200/- for each default and in addition, the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

**CLAUSE 19 D**

The contractor shall submit 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 fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
- (5) the number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them.

Failing which the contractor shall be liable to pay to Government, a sum not exceeding Rs.200/- for each default or materially incorrect statement. The decision of the Divisional Officer shall be final in deducting from any bill due to the contractor, the amount levied as fine and be binding on the contractor.

**CLAUSE 19 E**

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by the Central Public Works Department and its contractors.

**CLAUSE 19 F**

Leave and pay during leave shall be regulated as follows:-

1. Leave :
  - (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
  - (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage.
2. Pay :
  - (i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
  - (ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.

3. Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in appendix -I and II, and the same shall be kept at the place of work.

**CLAUSE 19 G**

In the event of the contractor(s) committing a default or breach of any of the provisions of the Central Public Works Department, Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and' Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Government a sum not exceeding Rs.200/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.

Should it appear to the Engineer-in-Charge that the contractor(s) is/are not properly observing and complying with the provisions of the C.P.W.D. Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R& A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

**CLAUSE 19 H**

The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Engineer-in-Charge.

- (i) (a) The minimum height of each hut at the eaves level shall be 2.10m (7 ft.) and the floor area to be provided will be at the rate of 2.7 sq.m. (30 sq.ft.) for each member of the worker's family staying with the labourer.
- (b) The contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.

- (c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.
  - (d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.
- (ii)
- (a) All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-in-Charge. In case of sun-dried bricks, the walls should be plastered with mud gobi on both sides. The floor may be kutchra but plastered with mud gobi and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.
  - (b) The contractor(s) shall provide each hut with proper ventilation.
  - (c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.
  - (d) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed.
- (iii) **Water Supply** - The contractor(s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also at his/ their own cost make arrangements for laying pipe lines for water supply to his/ their labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.
- (iv) The site selected for the camp shall be high ground, removed from jungle.
- (v) **Disposal of Excreta** - The contractor(s) shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee/authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/authority. The contractor shall provide one sweeper for every eight seats in case of dry system.
- (vi) **Drainage** - The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.
- (vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- (viii) **Sanitation** - The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

#### CLAUSE 19 I

The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent

or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour. AE/JE will display a list of contractors working in the colony/Blocks on the notice board in the colony and also at the service centre, to apprise the residents about the same.

#### **CLAUSE 19J**

It shall be the responsibility of the contractor to see that the building under construction is not occupied by any body unauthorizedly during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the Superintending Engineer whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, the Superintending Engineer, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

#### **CLAUSE 19K**

**Employment of skilled/semi skilled workers**

The contractor shall, at all stages of work, deploy skilled/semi skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs. 100 per such tradesman per day. Decision of Engineer-in-Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

Provided always, that the provisions of this clause, shall not be applicable for works with estimated cost put to tender being less than Rs. 5 crores.

#### **CLAUSE 19L**

**Contribution of EPF and ESI**

The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-Charge to the contractor on actual basis. **The applicable and eligible amount of EPF&ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.**

#### **CLAUSE 20**

**Minimum Wages Act to be Complied with**

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.

**Work not to be sublet. Action in case of insolvency**

**CLAUSE 21**

The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of Government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge on behalf of the President of India shall have power to adopt the course specified in Clause 3 hereof in the interest of Government and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.

**CLAUSE 22**

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

**Changes in firm's Constitution to be intimated**

**CLAUSE 23**

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

**CLAUSE 24**

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

**Settlement of Disputes & Arbitration**

**CLAUSE 25**

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

- (i) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge or if the Engineer in Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable and is disputed, such party shall promptly within 15 days of the arising of the disputes request the Chief Engineer or where there is no Chief Engineer, the Additional Director General (CE/ADG) who shall refer the

**disputes to Dispute Redressal Committee (DRC) within 15 days along with a list of disputes with amounts claimed if any in respect of each such dispute. The Dispute Redressal Committee (DRC) shall give the opposing party two weeks for a written response, and, give its decision within a period of 60 days extendable by 30 days by consent of both the parties from the receipt of reference from CE/ADG. The constitution of Dispute Redressal Committee (DRC) shall be as indicated in Schedule 'F'. Provided that no party shall be represented before the Dispute Redressal Committee by an advocate/legal counsel etc.**

If the Dispute Redressal Committee (DRC) fails to give its decision within the aforesaid period or any party is dissatisfied with the decision of Dispute Redressal Committee (DRC) or expiry of time limit given above, then either party may within a period of 30 days from the receipt of the decision of Dispute Redressal Committee (DRC), give notice to the Chief Engineer, CPWD, in charge of the work or if there be no Chief Engineer, the Additional Director General of the concerned region of CPWD or if there be no Additional Director General, the Director General, CPWD (CE/ADG/DG) for appointment of arbitrator on prescribed proforma as per Appendix XV under intimation to the other party.

**It is a term of contract that each party invoking arbitration must exhaust the aforesaid mechanism of settlement of claims/disputes prior to invoking arbitration.**

The CE/ADG/DG shall in such case appoint the sole arbitrator or one of the three arbitrators as the case may be within 30 days of receipt of such a request and refer such disputes to arbitration. Wherever the Arbitral Tribunal consists of three Arbitrators, the contractor shall appoint one arbitrator within 30 days of making request for arbitration or of receipt of request by Engineer-in-charge to CE/ADG/DG for appointment of arbitrator, as the case may be, and two appointed arbitrators shall appoint the third arbitrator who shall act as the Presiding Arbitrator. In the event of

- a. A party fails to appoint the second Arbitrator, or
- b. The two appointed Arbitrators fail to appoint the Presiding Arbitrator, then

The Director General, CPWD shall appoint the second or Presiding Arbitrator as the case may be.

- (ii) Disputes or difference shall be referred for adjudication through arbitration by a Tribunal having sole arbitrator where Tendered amount is Rs. 100 Crore or less. Where Tendered Value is more than Rs. 100 Crore, Tribunal shall consist of three Arbitrators as above. The requirements of the Arbitration and Conciliation Act, 1996 (26 of 1996) and any further statutory modifications or re-enactment thereof and the rules made there under and for the time being in force shall be applicable.

**It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed, if any, in respect of each such dispute along with the notice for appointment of arbitrator and giving reference to the decision of the DRC.**

**It is also a term of this contract that any member of the Arbitration Tribunal shall be a Graduate Engineer with experience in handling public works engineering contracts at a level not lower than Chief Engineer (Joint Secretary level of Government of India). This shall be treated as a mandatory qualification to be appointed as arbitrator.**

Parties, before or at the time of appointment of Arbitral Tribunal may agree in writing for fast track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015.

Subject to provision in the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended



**Contractor to indemnify Govt. against Patent Rights**

in 2015 whereby the counter claims if any can be directly filed before the arbitrator without any requirement of reference by the appointing authority, the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases where the total amount of the claims by any party exceeds Rs. 1,00,000/-, the arbitrator shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid as per the Act.

The place of arbitration shall be as mentioned in Schedule F. In case there is no mention of place of arbitration, the arbitral tribunal shall determine the place of arbitration.

The venue of the arbitration shall be such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. Failing any such agreement, then the Arbitral Tribunal shall decide the venue.

**Lumpsum Provisions in Tender**

**CLAUSE 26**

The contractor shall fully indemnify and keep indemnified the President of India against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against Government in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the President of India if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

**CLAUSE 27**

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

**CLAUSE 28**

**Action where no Specifications are specified**

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case, there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

**CLAUSE 29**

**Withholding and lien in respect of sum due from contractor**

(i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge or the Government shall be entitled to withhold the security deposit,

if any, furnished as the case may be and also have a lien over the same pending finalisation or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the Government or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or Government will be kept withheld or retained as such by the Engineer-in-Charge or Government till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the Government shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

- (ii) Government shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for Government to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Government to the contractor, without any interest thereon whatsoever.

Provided that the Government shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Superintending Engineer or Executive Engineer on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Superintending Engineer or the Executive Engineer.

#### **CLAUSE 29A**

#### **Lien in respect of claims in other Contracts**

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the Government or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or Government or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the Government or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under

this clause by the Engineer-in-Charge or the Government will be kept withheld or retained as such by the Engineer-in-Charge or the Government or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

### CLAUSE 30

**Employment of coal mining or controlled area labour not permissible**

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.

Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor.

The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to Government a sum calculated at the rate of Rs.10/- per day per labourer. The certificate of the Engineer-in-Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

**Explanation:-** Controlled Area means the following areas:

Districts of Dhanbad, Hazaribagh, Jamtara - a Sub-Division under Santhal Pargana Commissionery, Districts of Bankuara, Birbhum, Burdwan, District of Bilaspur.

Any other area which may be declared a Controlled Area by or with the approval of the Central Government.

### CLAUSE 31

**Unfiltered water supply**

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

- (i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.
- (ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

### CLAUSE 31 A

**Departmental water supply, if available**

Water if available may be supplied to the contractor by the department subject to the following conditions:-

- (i) The water charges @ 1 % shall be recovered on gross amount of the work done.
- (ii) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply.
- (iii) The Department do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/ their own cost in the event of any temporary break down in the Government water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break

down. **CLAUSE 32**

**Alternate water arrangements**

- (i) Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the Government, no charge shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damages and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.
- (ii) The contractor shall be allowed to construct temporary wells in Government land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damages to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damages caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

**CLAUSE 33**

**Return of Surplus materials**

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of Government either by issue from Government stocks or purchase made under orders or permits or licences issued by Government, the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the Government and return, if required by the Engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the licence or permit and/or for criminal breach of trust, be liable to Government for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

**CLAUSE 34**

**Hire of Plant & Machinery**

- (i) The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T&P on hire from the T&P available with the Government over and above the T&P stipulated for issue, the Government will, if such item is available, hire it

to the contractor at rates to be agreed upon between him and the Engineer-in-Charge. In such a case, all the conditions hereunder for issue of T&P shall also be applicable to such T&P as is agreed to be issued.

- (ii) Plant and Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- (iii) The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the Department.
- (iv) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over upto and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in-Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this, if the breakdown before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause, the decision of the Superintending Engineer shall be final and binding on the contractor.
- (v) The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof.
- (vi) Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.
- (vii) Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time, a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.
- (viii) The contractor shall release the plant and machinery every seventh day for periodical

servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing/ wash out irrespective of the period employed in servicing.

- (ix) The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-Charge, the work or a portion of work for which the same was issued is completed.
- (x) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorized agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book, the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement (see attached annexure).
- (xi) In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.
  - (a) In case, rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in Annexure to Clause 34(x). For less use of rollers, recovery for the less roller days shall be made at the stipulated issue rate.
- (xii) The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to his failure to return the same, soon after the completion of the work, for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- (xiii) The contractor will be exempted from levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work, provided Government plant and machinery in question have, in fact, remained idle with the contractor because of the suspension
- (xiv) In the event of the contractor not requiring any item of plant and machinery issued by Government though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

#### **CLAUSE 35**

**Condition relating to use of asphaltic materials**

- (i) The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
- (ii) The contractor shall collect the total quantity of tar or bitumen required for the work as

per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-Charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors. Although the materials are hypothecated to Government, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in-Charge in writing.

- (iii) The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.

#### **CLAUSE 36**

Contractors Superintendence, Supervision, Technical Staff & Employees

- (i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Schedule 'F'. The Engineer-in-Charge shall within 3 days of receipt of such communication, intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-Charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s) The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Engineer-in-Charge and/or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements/ checked measurements/ test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-Charge of the work, in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

#### **Employment of Technical Staff and employees**

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the contractor as specified in Schedule 'F' and the decision of the Engineer-In-Charge as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) alongwith every on account bill final bill and shall produce evidence if at any time so required by the Engineer-in-Charge.

- (ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

#### CLAUSE 37

**Levy/Taxes payable by Contractor**

- (i) GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and Government shall not entertain any claim whatsoever in this respect except as provided under Clause 38.
- (ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.

If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Government of India and does not any time become payable by the contractor to the State Government, Local authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.

#### CLAUSE 38

**Conditions for reimbursement of levy/taxes if levied after receipt of**

- (i) All tendered rates shall be inclusive any tax, levy or cess applicable on last stipulated date of receipt of tender including extension if any. No adjustment i.e. increase or decrease shall be made for any variation in the rate of GST, Building and Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs.

However, effect of variation in rates of GST or Building and Other Construction Workers **tenders**



Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease.

Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/ cess.

Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay as determined by authority for extension of time under Clause 5 in Schedule F.

- (ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Government and/or the Engineer-in-Charge and shall also furnish such other information/document as the Engineer-in-Charge may require from time to time.
- (iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

#### **CLAUSE 39**

**Termination of Contract on death of contractor**

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Divisional Officer on behalf of the President of India shall have the option of terminating the contract without compensation to the contractor.

#### **CLAUSE 40**

**If relative working in CPWD then the contractor not allowed to tender**

The contractor shall not be permitted to tender for works in the CPWD circle (Division in case of contractors of Horticulture/Nursery categories) responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the 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 C.P.W.D. 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. If however, the contractor is registered in any other department, he shall be debarred from tendering in CPWD for any breach of this condition.

NOTE: By the term "near relatives" is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

#### **CLAUSE 41**

**No Gazetted Engineer to work as Contractor within one year of retirement**

No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering department of the Government of India shall work as a contractor or employee of a contractor for a period of one year after his retirement from government service without the previous permission of Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government of India as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

**Return of material & recovery for excess material issued.**

**CLAUSE 42**

- (i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance - (see Clause 10), theoretical quantity of materials issued by the Government for use in the work shall be calculated on the basis and method given hereunder:-
- (a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.
  - (b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappings, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.
  - (c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.
  - (d) For any other material as per actual requirements.
- (ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in-Charge within fifteen days of the issue of written notice by the Engineer-in-Charge to this effect, shall be recovered at the rates specified in Schedule 'F', without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor.

For non scheduled items, the decision of the Superintending Engineer regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.

- (iii) The said action under this clause is without prejudice to the right of the Government to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

**CLAUSE 43**

**Compensation during warlike situations**

The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable

materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed, but not already measured and paid for, the compensation shall be assessed by the Divisional Officer upto Rs.5,000/- and by the Superintending Engineer concerned for a higher amount. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-Charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Divisional Officer.

#### **CLAUSE 44**

**Apprentices Act provisions to be complied with**

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

#### **CLAUSE 45**

**Release of Security deposit after labour clearance**

Release of Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete, the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

#### **NOTE:**

In case of difference or ambiguity in Hindi and English version, the English version will prevail.

**PARTICULAR SPECIFICATIONS**  
**&**  
**SPECIAL CONDITIONS**

**1. GENERAL**

- 1.1 Wherever any reference to any Indian Standard Specifications of BIS or other International standards of ASTM / BS/EN occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued there-to or revisions thereof, if any, up to the date of receipt of tenders.
- 1.2 The contractor shall work according to the programme of work as approved by the Engineer-in-charge, for which purpose, the contractor shall submit a programme of the work within 15 days from the stipulated date of start of the work based on computer software such as MS Project/ Primavera etc. and shall update the same every fortnight. The contractor shall submit monthly progress report of the work in a computerized form. The progress report shall contain the following, apart from whatever else may be required as specified:
- (i) Project information, giving the broad features of the contract of the work under the contract, and the broad structural or other details.
  - (ii) Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.
  - (iii) Construction schedule of the various components of the work through a bar chart for the next three quarters (or as may be specified), showing the milestones, targeted tasks and upto date progress.
  - (iv) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative upto the month, with reasons for deviations, if any, in a tabular format.
  - (v) Plant and machinery statement, indicating those deployed in the work, and their working status.
  - (vi) Man-power statement, indicating individually the names of all the staff deployed in the work, along with their designations.
  - (vii) Financial statement, indicating the broad details of all the running account payments received upto date, such as gross value of work done, advances taken, recoveries effected, amounts withheld, net payments, details of cheque payments received, etc.
  - (viii) A statement showing the extra and substituted items submitted by the contractor, and the payments received against them, items pending for sanction/decision by the Department, broad details of the Bank Guarantees, indicating clearly their validity periods, broad details of the insurance policies taken by the contractor, if any, the advances received and adjusted.
  - (ix) Progress photographs, in colour, of the various items/components of the work done upto date, to indicate visually the actual progress of the work.
  - (x) Quality assurance and quality control tests conducted during the month, with the results thereof.
  - (xi) Videography at various stages of construction right from the day of start of work to date of completion/occupation, covering all major events, inspections, visits by dignitaries etc.

- 1.3 The contractor shall take instructions from the Engineer-in-charge for stacking of materials at site. No excavated earth or building materials shall be stacked on areas where the buildings, roads, services or compound walls are to be constructed.
- 1.4 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 shall be payable to him on this account.
- 1.5 The working drawings appearing at para 8.1(iii) of conditions of contract in the form CPWD-7, shall mean to include both architectural and structural drawings respectively. The structural and architectural drawings shall be properly correlated before executing the work. In case of any difference noticed between architectural and structural drawings, final decision, in writing of the Engineer-in-charge shall be obtained by the contractor before proceeding further.
- 1.6 Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restriction / instructions including issue of identity cards to all persons authorized by him to do work / visit the work site and nothing shall be payable on this account.
- 1.7 The contractor shall make his own arrangements for obtaining electric connections, if required, and make necessary payments directly to the department concerned.
- 1.8 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 contractors, or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-Charge. The contractor shall be responsible for any damage due to hindrance caused by him.
- 1.9 Cast iron pipes and fittings without ear shall be used. However, pipes and fittings with ears may be accepted without any extra payment. In such cases, clamps are not required and no extra payment shall be made for fixing the pipes in a different manner.
- 1.10 Any cement slurry added over base surface for bond or for continuation of concreting, for protecting reinforcement bars, its cost shall be deemed to have been included in the respective items, unless specified otherwise and nothing extra shall be payable nor extra cement shall be considered in the cement consumption on this account.
- 1.11 Stacking of materials and excavated earth including its disposal shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required at any stage shall have to be done by the contractor at his own cost.
- 1.12 No claim for idle establishment & labour, machinery & equipments, tools & plants and the like, for any reason whatsoever, shall be admissible during the execution of work as well as after its completion.
- 1.13 Only Star headed Stainless Steel screws shall be used unless otherwise specified.
- 1.14 **Work shall be carried out in professional manner with finished product serving the intended purpose with specified strength, durability and aesthetics.**

- 1.15 Work activities shall be executed in well thought out sequences such that consequent activities not adversely affecting previously done work. Nothing extra shall be payable to protect the works already done.
- 1.16 The contractor shall prepare all the needed shop drawings well in advance and get them approved before placing the order and execution of the item.
- 1.17 The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer - in -Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications.
- 1.18 *The contractor shall not store /dump construction material or debris on metalled road.***
- 1.19 *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.***
- 1.20. *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.***
- 1.21 *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.***
- 1.22 *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.***
- 1.23 *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.***
- 1.24 *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.***
- 1.25 *The contractor shall compulsory use of wet jet in grinding and stone cutting.***
- 1.26 *The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines, 2010 or amended thereafter.***
- 1.27 *The contractor shall carry out on-Road-Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.***
- 1.28 *The contractor shall ensure that all DG sets, comply latest emission norms notified by MoEF.***
- 1.29 *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.***

- 1.30 *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.*
- 1.31 *The paving of the path for plying of vehicles carrying construction material is more permanent solution to dust control and suitable for longer duration projects.*
- 1.32 *The agency is permitted to erect the site office, store yard and ground water extraction facility temporarily near the place of construction free of cost only after getting specific approval of Engineer in-charge. Contractor shall remove such structures on completion of work.*
- 1.33 *Work is to be executed adjacent to existing occupied hostel building and within working hospital campus and so working hours may be limited to eight hours per day. Agency has to plan his working as per timeline restrictions of institute and no extension of time on this ground will be accepted.*
- 1.34 *Entry to the campus may be restricted from particular entrance gate and agency has to follow security rules of the campus & nothing extra shall be payable on this account.*
- 1.35 *No wooden props are allowed in centering and shuttering work. Only steel props are permitted. Steel shuttering plate used for shuttering should be dent free, straight and of proper thickness to avoid any sagging in concrete. Preferably marine ply may be used in work.*

## **2.0 FLOORING, SKIRTING, VENEERING, DADO, TREADS & RISERS OF STEPS, JAMBS, SILLS & SOFFITS**

- 2.1 Nothing extra shall be payable for using combination of marble, granite and kota in the required pattern at various locations unless otherwise specified.
- 2.2 Flooring in toilets, verandah, kitchen, courtyard and at other places if required shall be laid to the required slope/gradient as per the directions of the Engineer-in-Charge and nothing extra shall be paid on account of the same.
- 2.3 The pattern, spacing and locations of joints shall be as per drawings and direction of the Engineer-in-Charge and nothing extra shall be paid on account of the same.

## **3.0 SPECIALISED ITEMS**

### **3.1 LIST OF SPECIALISED ITEMS:**

(As specified in Annexure – I to IV of Section -16 of CPWD Works Manual 2014, as detailed below but not limited to) :-

1. Lift
2. Hot water / Steam boilers
3. Public Address System
4. Supply & erection of High Mast Lighting
5. EPABX system i/c equipment and wiring
6. CCTV and allied system
7. solar Power Generation System
8. Firefighting equipment (including wet riser and sprinkler system, portable fire extinguishers), fire detection and alarm and any other co-related items.

### **3.2 Procedure for Execution of the Specialized Items:**

Such items should be got executed only through associated agencies specialized in these fields. The contractor shall indicate the name(s) of his associated specialized agencies

those fulfilling the conditions described in para 16.5 of CPWD Works Manual-2014 as early as possible and within one month of award of work to Engineer-in-Charge for approval of competent authority.

### 3.3 Specialized Agencies

3.3.1 Specialized Agencies for items in case of Civil works shall be approved by the competent authority. The contractors shall quote the rates after careful study of contract conditions, specifications, drawings & schedule of quantities.

**Eligible contractor through association of specialized agency / firm duly approved by the competent authority will have to execute tripartite agreement between main composite category contractor / Department and Specialized agency. The specialized agency / firm will be made a payment to the extent of 90% directly by the Executive Engineer, Engineer-in-charge of the work. Tender accepting authority may approve the change of agency in case it is required during the currency of the contract.**

3.3.2 It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub-contractor(s). No claim of hindrance in the work shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies.

3.3.3 For specialized items, the main contractor cannot work as a specialized agency unless his name is already included in the list of approved specialized agencies for these items. The contractor shall get these items executed through the specialized agencies as approved by competent authority.

### 3.4 RATES

3.4.1 The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, survey 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 as per drawing supplied by Engineer in charge, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift, levels and location etc. 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.

3.4.2 The rates quoted by the tenderer, shall be firm and inclusive of all taxes and



levies.

3.4.3 No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.

3.4.4 All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, 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, completion certificates from local bodies etc., protection works, testing facilities / laboratory at site of work, facilities for all field tests 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 rates quoted by the Contractor, for various items in the schedule of quantities. 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 & other storage, fabrication yard, site laboratory, water tank etc.

3.4.5 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.

3.4.6 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.

### **3.5 CLEANLINESS OF SITE**

The Contractor shall not stack building material / malba / muck/ rubbish on the land or road of the local development authority or on the land owned by the others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local 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 / malba as stated above, the Contractor shall be liable to pay the stacking charges / penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the

Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

### **3.6 INSPECTION OF WORK**

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

### **3.7 GUARANTEE FOR WATER PROOFING TREATMENT:**

The contractor shall give Ten years performance guarantee in the prescribed proforma for the water proofing treatment. In addition 10% (Ten percent) of the cost of water proofing items shall be retained as security, to watch the performance of the work executed. However, half of this amount (withheld) shall be released after five years, after the completion of the work, if no defect comes to notice. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within Seven days after serving the notice by Department and, if not attended to, the same shall be got done through other agency at the risk and cost of the contractor. In any case the guaranteeing firms during the guarantee period shall inspect and examine the treatment once every year and make good any defect observed and Certificate to that effect shall be submitted to Department every year. However, the 10 % security deposit referred above can be replaced with bank guarantee of equivalent amount for relevant period.

### **4.0 Stainless Steel Railing/Handrails:**

#### **4.1 GENERAL**

The contractor shall apply all materials, labour, tools, ladders, scaffolding and other equipments necessary for the completion and protection of all stainless steel work.

#### **4.2 MATERIAL**

All stainless steel pipes and plates shall conform to AISI 304 in 18/8 composition. 18 will be chromium and 8 will be Nickel and carbon content will be 0.03 maximum and the relevant clauses associated with this grade of steel to be followed.

#### **4.3 SURFACE FINISH**

Surface finish of all the stainless steel materials will be in 240 grit satin finish / matt finish.

#### **4.4 ACCESSORIES**

Fixing will be done by stainless steel expansion bolts of approved size and make as per Engineer-in-charge and welding to be done by using organ welding rods and the surface being duly finished and cleaned by K2 passivation, which is nitric acid plus florlic acid solution treatment by which the chances of corrosion will be eliminated and any burn out makes on the metal will also be eliminated.

#### **4.5 COATING MASS**

All stainless steel material will have to be coated by a solution of Inox to avoid finger in prints and avoidance of settlement of environment / atmospheric dust.

#### 4.6 MEASUREMENT

All the stainless steel finished parts shall be weighed correct to a gram and paid on weight basis.

#### 4.7 RATE

The rate shall include the cost of all the materials, machinery and labour involved in all the operations described above including cartage, lifts and all taxes as applicable.

Any incidental additional requirements for execution of this item to the satisfaction of Engineer-in-Charge shall also be treated as included in the item and shown in attached drawing and nothing extra will be paid for such extra work.

Installation drawings for approval of the Engineer-in-charge-in-Charge and no work shall be performed until the approval of these drawings is obtained.

#### 4.8 CO-OPERATION WITH OTHER CONTRACTORS/SPECIALIZED AGENCIES / SUB- CONTRACTORS

4.8.1 The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the public in general .The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. The Contractor shall use such methodology and equipments for execution of the work, so as to cause minimum environmental pollution of any kind during construction. Further, the Contractor shall take all precautions to abide by the environmental related restrictions imposed by Madhya Pradesh Pollution control board, Govt. of Madhya Pradesh.

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 claim what so ever on account of site constraints mentioned above or any other site constraints, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

4.8.2 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 **client / user department against any claim(s) arising out of such disputes**

4.8.3. The Contractor shall :

- (i) Allow use of scaffolding, toilets, sheds etc.
- (ii) Properly co-ordinate their work with the work of other Contractors.
- (iii) Provide control lines and benchmarks to his Sub-Contractors and the other

Contractors.

- (iv) Provide electricity and water at mutually agreed rates.
- (v) Provide hoist and crane facilities for lifting material at mutually agreed rates.
- (vi) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
- (vii) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.
- (viii) Resolve the disputes with other Contractors/ sub-contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.

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

4.8.5 Other agencies will 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 (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

4.8.6 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 co -ordination manner and shall perform it in proper sequence to the complete satisfaction of others.

## 5.0 Specification of Aluminum Work

Aluminum work under SH : "aluminum work" of tender document shall be got executed from approved agency. The agency for the aluminum work shall be got approved from the Engineer - in - Charge, well before actual commencement of the item of work. Necessary performance certificates in respect of agencies proposed to be engaged shall be submitted within 30 days from the date of issue of acceptance letter to substantiate technical capability and experience of the agency for prior approval of the Project manager/ Zonal Chief Engineer.

### Specifications for Aluminum Door, Window, Ventilator:

#### 5.1 : Extent and Intent :

The work shall be carried out through an approved contractor who shall furnish all materials, labour, accessories equipment tool & plant, incidental. Required for providing and installing anodized aluminum door, windows, claddings, louvers and other items as called for on the drawings. The drawings and specifications cover the major requirement only. The supplying of additional fastenings, accessory features and mentioned specifically herein but which are necessary to make a complete installation shall be a part of the contract.

#### 5.2 : General :

Aluminum doors, windows etc. shall be of sizes, section detail as shown on the drawings. The details shown on the drawings indicate generally the sizes of the components parts and general standards. These may be varied slightly to suit the standards adopted by the manufacture. Before proceeding with any manufacturing, the contractor shall prepare and submit complete manufacturing and installation drawings for approval of Engineer-in-Charge and no work shall be performed until the approval of these drawings is obtained.

**5.3 : Shop Drawings :**

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

**5.4 : Samples :**

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

**5.5 : Sections :**

Aluminum doors and windows shall be fabricated from extruded section of profiles as detailed on drawings. The sections shall be extruded by the manufacturers approved by the Engineer-in-Charge. The aluminum extruded section shall conform to IS designation 63400-WP(HV9WP old designation) with chemical composition and technical properties as per IS : 733 and 1285. The permissible dimensional tolerance of the extruded sections shall be such as not to impair the proper and smooth function / operation and appearance of doors and windows.

**5.6 : Fabrications :**

Doors, window etc. shall be fabricated to sizes as shown at factory and shall be of section, sizes combinations and details as shown in the Architectural drawings, all doors, windows etc. shall have mechanical joints. The joints shall be designed to withstand a wind load of 150 kgs. per sqm. the design shall also ensure that the maximum deflection of any member shall be accurately machined and fitted to form hairline joints prior to assembly. The joint and accessories such as cleats brackets, etc. shall be of such materials as not to cause any bi-metallic action, the design of the joints and accessories shall be such that the accessories are fully concealed. The fabrication of doors, windows etc. shall be done in suitable sections to facilitate easy transportation, handing and installation. Adequate provision shall be made in the door and windows members for anchoring to support and fixing of hardware and other fixture as approved by the Engineer-in-Charge.

**5.7 : Anodizing :**

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

**5.8 Powder Coating:**

The powder used for powder coating shall be polyester powder made by Berger or Jenson & Nicholson or equivalent. The thickness of powder coating shall not be less than 60 micron at any point measured with micrometer.

**5.8 : Protection of Finish :**

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

**5.9 : Handling and Stacking :**

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

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

5.9.3 Where aluminum comes into contact with masonry brick work / concrete / plaster or dissimilar metals, it shall be coated with approved insulation lacquer paint or plastic tape to ensure that electro chemical corrosion is avoided. Insulation materials shall be trimmed off to clear flush line on completion.

**5.9.4 Silicon Sealant :**

The peripheral gaps between plastered faces / RCC and aluminum sections shall be sealed both from inside and outside to make the windows watertight. Gaps up to 10mm between the peripheral aluminum member and masonry / RCC / Stone shall be sealed by inserting Backer Rod manufactured by HT TROPLAST or Supreme Industries and by application of weather silicon / sealant of DOW corning / GE silicon make.

5.9.5 The contractor shall be responsible for assembling composite, bedding set straight plumb, level and for their satisfactory operation after fixing is complete.

**5.10 : Installation :**

5.10.1 Just prior to installation the doors, windows etc. shall be uncrated and stacked on edge on level bearers and supported evenly. The frame shall be fixed into position true to line and level using adequate number of expansion machine bolts, anchor fasteners of approved size and manufacture and in an approved manner. The holes in concrete / masonry members for housing anchor bolts shall be drilled with an electrical drill.

5.10.2 The doors windows assembled as shown on drawings shall be placed in correct final position in this opening and marks made on concrete members at jambs, sills and heads against the holes provided in frames for anchoring. The frame shall then be removed then the opening and laid aside. Neat holes with parattle sides of appropriate size shall then be drilled in the concrete members with an electric drill at the marking to house the expansion bolts. The expansion bolts shall then be inserted in the holes, struck with a light hammer till the nut is forced into the anchor shall. The frame shall then be placed in final position. In the opening and anchored to the support through cadmium plated machine screws of required sized threaded to expansion bolts. The frame shall be set in the opening by using wooden wedges at supports and be plumbed in position. the wedges shall invariably be placed at meeting points of glazing bars and frames.

**5.10.3 : Neoprene Gaskets :**

The E.P.D.M. gasket of suitable profile as manufactured by HANU INDUSTRIES, ANNAND LESCUYER make shall be provided at all required positions to make the glazing airtight. The contractor shall provide and install Neoprene Gaskets of approved size and profile at all locations as shown and as called for to render the doors windows etc. absolutely

air tight and weather tight. The contractor shall submit samples of the gaskets for approval and procure after approval only.

**5.10.4 : Fittings :**

The contractor shall cut the floor properly with stone cutting machine to exact size and shape. The spindle of suitable length to accommodate the floor finish shall be used. The contractor shall give the guarantee duly supported by the company for proper functioning of floor springs at least for 10 years.

Hinges, stays handles, tower bolts, locks and other fittings shall be of quality and manufacturer as approved by the Engineer – in – Charge.

**5.11 : Details of Test :**

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

5.11.2 The minimum number of each unit of doors / windows shall be selected at random by Engineer-in-Charge as such that all the aluminum section shall be got tested.

S. No.	Details	No. of Tests
1.	Doors, Windows & Ventilators	5% of Nos. manufactured.

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

5.11.4 The cost of sample, carriage of the samples shall be borne by the contractor. Testing charges shall be born by department, but if samples fails in testing, complete cost of testing charges shall be born by the contractor.

**5.12 : Acceptance Criterion :**

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

**5.13 : Measurement :**

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

**5.14 : Rates :**

The rates of the items shall include the cost of all materials, labours and inputs required in all the above operations.

**6.0(A) CONSUMPTION OF PIG LEAD AND IT'S VARIATION FOR SCI SANITARY PIPES AND FITTINGS AS PER IS:3989**

In order to ensure that adequate lead is poured properly into the joints and to control waste in use of lead for caulking of joints of SCI pipes and fittings, at the beginning of the work three or four sample joints shall be made and the quantum of lead per joint approved by the Engineer in charge. The actual consumption of lead should be within variation of 5% of the approved sample job. This variation includes allowances of wastage also. If the actual consumption of pig lead is less than the required consumption worked out on the above basis, the recovery on account of less use of lead shall be made from the contractor at market rate to be determined by the Engineer-in-charge, whose decision in the matter shall be final & binding.

**6.0(B) FIXING OF SCI/CI PIPE**

The SCI/CI pipes and G.I. pipes, wherever necessary, shall be fixed to RCC columns, beams etc. with rawl plugs, or appropriate fasteners as approved by Engineer-in-Charge, and nothing extra shall be payable on this account. GI pipes shall be wherever made to pass through wall / concrete then it shall be done using protective sleeves around the pipes to protect it from damage, nothing extra shall be payable on this account.

#### **7.0 CONDITION FOR CEMENT :-**

- 7.1 The Contractor shall procure 43 grade Ordinary Portland cement (conforming to IS : 8112) or Portland slag cement (conforming to IS : 455) or Portland Pozzolana Cement (PPC) (Fly ash based) – conforming to IS : 1489 (Part-I) as required in the work, from reputed manufactures of cement such as ACC, Ultratech, Vikram, Shree Cement, Birla Gold, Ambuja & J.K. Cement or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by ADG for that sub region.

**The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacture(s) which the contractor proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturer, given by the tenderer, fully or partially.**

Supply of cement shall be taken in 50 Kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-charge and got issue 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 Portland Pozzolana cement or Portland slag cement is used, suitable modification in de-shuttering time etc. shall be done if need be as per specifications and standards and as directed by Engineer – in – charge and nothing extra shall be payable on this account.

No extra payment / deduction shall be made from the payment to the contractor for using any of the above type of cement.

- 7.2 The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer - in - charge.
- 7.3 For each grade / type, cement bags shall be stored in two separate godowns, one for tested cement and the other for fresh cement (under testing) constructed by the contractor at site of work as per sketch shown in General conditions of contract for CPWD works 2014 with weather proof roofs and walls, for which no extra payment shall be made. The size of the cement godown is indicated in the sketch for guidance only. The actual size of godown shall be as per site requirements and as per the direction of the Engineer in charge and nothing extra shall be paid for the same. The decision of the Engineer-in-charge regarding the capacity required/needed will be final. However, the capacity of each godown shall not be less than 100 tonnes. Each godown shall be provided with a single door with two locks. The keys of one lock shall remain with CPWD Engineer-in-charge or his authorized representative and that of other lock



with the contractor at the site of work so that the cement is issued from godown according to the daily requirement with the knowledge of both the parties. The account of daily receipt and issue of cement shall be maintained in a register in the prescribed Proforma and signed daily by the contractor or his authorized agent in token of its correctness.

7.4 The cement shall be got tested by Engineer –in –Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The cost of tests shall be borne by the contractor / **Department in the manner indicated below :-**

**(a) By the contractor, if the results show that the cement does not conform to relevant BIS codes.**

**(b) By the Department, if the results show that the cement conforms to relevant BIS codes.**

7.4.1 All other charges of sampling, packing and transportation of sample shall also be borne by the Contractor.

7.5 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained separately for each type of cement, as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in Clause 42 of the contract and shall be governed by conditions laid therein. However, for consumption lesser beyond permissible theoretical variation recovery shall be made in accordance with conditions of contract at Schedule A to F (CPWD-7), without prejudice to action for acceptance of work/item at reduced rate or rejection as the case may be. In case of excess consumption no adjustment shall be made.

7.6 For non-schedule items, the decision of the Superintending Engineer regarding theoretical quantity of cement, which should have been actually used, shall be final and binding on the contractor.

7.7 **Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.**

## **8.0 CONDITIONS FOR REINFORCEMENT STEEL :-**

8.1 The contractor shall procure IS marked TMT bars of various grades from

- i) The steel manufacturers such as SAIL, TATA Steel Ltd., RINL, Jindal Steel & Power Ltd. and JSW Steel Ltd. or their authorized dealers having BIS license for IS : 1786-2008 (Amendment -1 November 2012)
- ii) The steel manufacturers or their authorized dealers having valid BIS license for IS : 1786-2008 (Amendment-1 November 2012) as approved from Chief Engineer CSQ (Civil) unit, Delhi in compliance of DG/MAN/366 dt. 14.03.2018.

The procured steel should have following qualities:-

- i. Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
- ii. Consumption of steel should be accurate as per design.
- iii. Steel should have no brittleness problem in finished product.
- iv. Steel should carry the quality of corrosion and earthquake resistance.

- v. Quality steel with achievement of proper level of sulphur and phosphorus as per IS:1786-2008.
- 8.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work.
- 8.3 Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time of written orders from the Engineer-in-Charge to do so.
- 8.4 The steel reinforcement bars shall be brought at site in bulk supply of 10 tonnes or more, or as decided by the Engineer-in-charge.
- 8.5 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 8.6 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, and at frequency not less than that specified below:

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

- 8.7 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 8.8 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 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.
- 8.9 Steel brought to site and remaining unused shall not be removed from site without the written permission of Engineer-in-Charge.
- 8.9(i) Reinforcement including authorized spacer bars and lappages shall be measured in length for different diameters as actually (not more than as specified in the drawings)

used in the work nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.

(ii) The standard sectional weights referred to shall be as in Table 5.4 in para 5.3.4 in revised CPWD specifications 2009 Vol. I will be considered for conversion of length of various sizes of TMT bars in to standard weight.

(iii) Record 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.

(a) If the derived weight as in sub-para (iii) above is less than the standard weight as in sub-para (ii) above, then the Derived Actual Weight shall be taken for payment.

(b) If the derived actual weight is found more than the standard weight, than standard weight as worked out in sub para (ii) above shall be taken for payment. Nothing shall be paid extra for the difference in Derived/ Actual Weight and standard weight.

8.10 Every care should be taken to avoid mixing different types of grades of bars in the same structural members as main reinforcement to satisfy relevant clause of IS: 456. In case of buildings, wherever the situation necessitates, the change over shall be permitted only from any one level onwards. In case of foundations, all foundation elements (footings and grade beams) shall have the same kind of steel. In the case of columns, all structural elements up to the level of change, where the change over is taking place should have the same kind of steel as those in columns.

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

#### **8.0(A) Special condition for structural steel (Tee, Angle, Channel, Structural Tubes and plates & R.S. Joist)**

8.1(A) The contractor shall procure Structural steel (Tee, Angle, Channel, Structural Tubes and plates & R.S. joist) from primary producers (SAIL, Tata Steel Ltd, RINL, Jindal Steel & Power Ltd. and JSW steel Ltd.).

In case of non availability of structural steel from primary producers the NIT approving authority may permit use of structural steel procured from steel producers having valid BIS license confirming to IS -2062-2006

8.2(A) Samples shall be taken and got tested by the Engineer-in-charge confirming to relevant BIS code. In case the test results indicate that the structural steel arranged by the

contractor does not conform to the specification, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week's time or written orders from the Engineer-in-charge to do so.

- 8.3(A) The structural steel shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account.
- 8.4(A) The contractor shall supply free of charge the structural steel sample required for testing including its transportation to testing laboratories . The cost of test shall be borne by the department if it confirm to relevant BIS code else the testing charges shall be borne by the contractor.
- 8.5(A) The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.
- 8.6(A) In case contractor is permitted to use structural steel other than above mentioned make as in 8.1(A) then:
- (1) Base Price of Structural Steel as stipulated under Schedule 'F' shall be reduced by 3500/-MT However, for operation of provision of clause 10CA in such case the indices for structural steel will be considered same as indicated in Indices issued by DG.CPWD for primary producer.
  - (2) The quoted rate of relevant item of tender of structural steel work shall be reduced by 4.00 per Kg.
- 8.7(A) If the actual weight of structural steel to be used in the work differs from standard weight, the following procedure shall be followed for arriving at the quantity for payment.
- (a) If the actual weight is more than standard weight only standard weight shall be considered for payment.
  - (b) If the actual weight is less than standard weight but within the permissible vitiation, only actual weight shall be considered for payment.

## **9.0 REINFORCED CEMENT CONCRETE WORK**

### **9.1 DESIGN MIX CONCRETE**

9.1.1 The RCC work shall be done with 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. For the nominal mix in RCC, CPWD Specifications shall be followed. The Design Mix Concrete will be designed based on the principles given in IS: 456-2000. The contractor shall design mixes for each grade of concrete indicating that the concrete ingredients and proportions will result in concrete mix meeting requirements specified. In case of use of admixture and or white cement, the mix shall be designed with these ingredients as well.

9.1.2 The concrete mix design will be carried out by the contractor through one of the following laboratories / Test houses and ready mix concrete shall conform to accepted design mix.

a) MANIT, Bhopal. b) Govt. Engineering College, Sagar. c) I.I.T., Delhi. d) Govt. Engineering College, Raipur. e) National Council for Cement & Building Materials, Ballabgarh, Haryana, f) G.S.I.T.S., Indore g) MITS, Gwalior h) Govt. Engineering College, Jabalpur, UIT( RGPV) Bhopal.

9.1.3 In the event of all the above laboratories being unable to carry out the requisite design / testing the contractor shall have to get the same done from any other laboratory with prior approval of the Engineer-in-Charge.

9.1.4 The contractor shall submit the mix design report from any of above approved laboratories for approval of Engineer-in-Charge **within time given by Engineer-in-Charge** from the date of issue of letter of acceptance of the tender.

9.1.5 In case of white Portland cement and the likely use of admixtures where CC/RCC is done with concrete pumps in concrete with ordinary Portland/white Portland cement, the contractor shall design and test the concrete mix by using trial mixes with white cement and /or admixtures also, for which nothing extra shall be payable.

9.1.6 Each time when there is change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised mix design shall be done and approval obtained from the approved Laboratory or as per the direction of the Engineer-in-Charge. Preferably only single source of cement shall be kept for the work. In case contractor decides to use more than one source of approved cement brand then for each brand separate design mix shall be done and got approved by Engineer-in-charge.

9.1.7 The Mix shall be designed to produce the grade of concrete having required workability and characteristic strength not less than as specified.

9.1.8 The mix design for a specified grade of concrete shall be done for a target mean compressive strength  $T_{ck} = F_{ck} + 1.65 S$

Where,

$F_{ck}$  = Characteristic compressive strength at 28 days.

$S$  = Standard deviation

The standard deviation for each grade of concrete shall be calculated separately.

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 follows:-

Grade of Concrete	For "Good" quality of control
M 20	4.0
M 25	4.0
M 30	5.0
M 35	5.0

9.1.9 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 likely to be attained at 28 days. All cost of mix designing and testing connected therewith including charges payable to laboratory shall be borne by the Contractor.

- 9.1.10 The samples of cement, aggregate (fine & coarse) to be sent to the laboratories shall be sealed in the presence of the Engineer-in-Charge and shall have his signature and cost of packaging, sealing, transportation, loading, unloading, cost of samples and the testing charges for Mix design in all cases shall be borne by the contractor.
- 9.1.11 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.
- 9.1.12 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 fit or unfit for use in production of mix.
- 9.1.13. The Contractor shall submit the test data of the material used for concrete mix-design in the laboratories, so the material being used at site can be compared with those data / size etc.
- 9.1.14 In case of change of parameters of ingredients (fine aggregate, cement, coarse aggregate) fresh concrete mix-design to be done as mentioned in paras 9.1.1, 9.1.2 & 9.1.6 to 9.1.10 above and got approved from the Engineer-in-Charge before execution.
- 9.1.15 The contractor shall make arrangement to install a mini laboratory at site for accelerated testing of design mix concrete as per IS : 9013. The department reserves right to take samples of design mix concrete from the mass production of the concrete for testing and compare with the laboratory's results.
- 9.1.16 Nothing shall be paid extra for installation and cost of batching plant and other arrangement for making necessary test of design mix concrete.
- 9.1.17 The item of design mix cement concrete shall be inclusive of all the ingredients including admixtures if required, labour, machinery T & P etc. (except shuttering which will be measured & paid for separately) required for a design mix concrete of required strength and workability. **The rate quoted by the agency shall be net & nothing extra shall be payable on account of change in quantities of concrete ingredients like aggregates and admixtures as per the approved mix design.**
- 9.1.18 Concrete shall be handled from the place of mixing to the place of final deposit / placement by methods, which prevent segregation, or loss of any ingredients and contamination.
- 9.1.19 Where concrete is conveyed by chutes, the chute shall be made of metal or fitted with metal lining. The approval of the Engineer-in-charge shall be obtained for the use of chutes in excess of 3 metres length and in such cases the concrete shall be remixed if so required by the Engineer-in-Charge or closed bottom buckets shall be used. If concrete is placed by pumping, the conduit shall be primed properly. Once pumping is started, it shall not be interrupted as far as possible. Concrete shall not be dropped into place from a height more than 1.5m.
- 9.1.20 Concreting of any portion of the work shall be done in presence of the representative of the Engineer-in-Charge and shall be done only after approval of the Engineer-in-Charge.
- 9.1.21 Concreting shall be carried out continuously between constructions joints shown on the drawings or as agreed by the Engineer-in-Charge. The contractor shall closely follow the sequence of concreting where it is specified in the drawings. If concreting is interrupted before reaching the predetermined joint an approved construction joint

shall be provided. Construction joints shall be minimized as far as possible. These shall be set at right angles to the general direction of the member. The surface film of the first placed concrete should preferably be removed while the concrete is still green to expose the aggregate and leave a sound irregular surface. However care shall be taken not to disturb the concrete already laid.

9.1.22 **Admixtures** : Wherever required, admixtures of approved quality only shall be mixed with concrete as specified. The admixtures shall conform to IS: 9103. The chloride content in the admixture shall satisfy the requirements of BS: 5075. The total amount of chlorides in the admixture mixed concrete shall also satisfy the requirements of IS 456-2000.

9.1.23 Use of ready mixed concrete (RMC) may also be permitted, with prior approval of Engineer –in – Charge, without any extra payment. Separate account of design mix concrete and RMC shall however be kept. The ready mixed concrete shall conform to the requirement of durability, workability and strength as laid down for design mix concrete.

## 9.2 Use of Fly Ash and Fly Ash Blended Cements in RCC Structures :-

### 9.2.1. General

**9.2.1.1** IS : 456-2000 Code of Practice for plain and Reinforced Concrete (as amended up to date) shall be followed in regard to Concrete mix Proportion and its production as under :-

**9.2.1.1.1** The concrete mix design shall be done as “Design Mix Concrete” as prescribed in clause – 9 of IS 456 mentioned above.

**9.2.1.1.2** 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.

**9.2.1.2** Minimum M25 grade of concrete shall be used in all structural elements made with RCC both in load bearing and framed structure.

**9.2.1.3** The mechanical properties such as modulus of elasticity, tensile strength, creep and shrinkage of flyash mixed concrete or concrete using flyash blended cements (PPCs) should not likely to be significantly different and their values are to be taken same as those used for concrete made with OPC. Fly ash when used in the production of concrete shall be strictly in conformity with IS : 3812 (Para 1 & 10).

**9.2.1.4** To control higher rate of carbonation in early ages of concrete both in flyash admixed as well as PPC based concrete, water / binder ratio shall be kept as low as possible, which shall be closely monitored during concrete manufacture. If necessitated due to low water / binder ratio, required workability shall be achieved by use of chloride free chemical admixtures conforming to IS : 9103. The compatibility of chemical admixtures and super plasticizers with each set OPC, fly ash and / or PPC received from different sources shall be ensured by trials.

**9.2.1.5** In environment subjected to aggressive chloride or sulphate attack in particular, use of flyash admixed or PPC based concrete is recommended. In cases, where structural concrete is exposed to excessive magnesium sulphate,

flyash substitution / content shall be limited to 18% by weight. Special type of cement with low C3A content may also be alternatively used. Durability criteria like minimum binder content and maximum water / binder ratio also need to be given due consideration in such environment.

**9.2.1.6** Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot and arid regions, the minimum curing period shall be 14 days or its equivalent.

**9.2.2. Use of Flyash Admixed Cement Concrete (FACC) in RCC Structures:-**

There shall be no bar on use of FACC in RCC structures subject to following additional conditions :-

**9.2.2.1** Flyash shall have its chemical characteristics and physical requirements etc. conforming to IS : 3812 (Part-10) and shall be duly certified.

**9.2.2.2** To ensure uniform blending of flyash with cement in conformity with IS : 456, a specific facility needs to be created at site with complete computerized automated process control to achieve design quality or with similar facility from Ready Mix concrete (RMC) plants.

**9.2.2.3** As per IS : 1489 (Part-I), Maximum 35% of OPC by mass is permitted to be substituted with flyash conforming to IS : 3812 (Part-I) and same is reiterated.

**9.2.2.4** Separate storage for dry flyash shall be provided. Storage bins or silos shall be weather proof and permit a free flow and efficient discharge of flyash. The filter or dust control system provided in the bins or silos shall be of sufficient size to allow delivery of flyash maintained at specified pressure to prevent undue emission of flyash dust, which may interfere weighing accuracy.

**9.2.3. Use of Fly Ash Blended Cements in Cement Concrete (PPCC) in RCC structures**

**9.2.3.1** Subject to General Guidelines detailed out as above, PPC manufactured conforming to IS : 1489 (Part-I) shall be treated at par with OPC for manufacture of Design Mix Concrete for structural use in RCC.

**9.2.3.2** Till the time, BIS makes it mandatory to print the %age of flyash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be insisted upon before allowing use of such cements in works.

**9.2.3.3** While using PPC for structural concrete work, no further admixing of fly ash shall be permitted.

~~**9A.0 PILE WORK**~~

~~9A.1 The pile work shall be done in conformity with IS : 2911 (Part 1 to IV) 1980 and CPWD specification of works as applicable for clause 11 of schedule F.~~

**10.0 PARTICULAR SPECIFICATIONS FOR AAC BLOCK MASONRY:**

- 10.1 The AAC Blocks shall be procured from approved manufacturers and it shall conform to IS 2185-Part3 1984.
- 10.2 The blocks shall be stored at site in stacks on a level dry surface.
- 10.3 The AAC blocks shall of grade I having density between 651 to 750 Kg per cum as per table I of IS 2185 Part 3 1984.
- 10.4 The thickness of joints in the masonry shall not exceed 10 mm and shall be of uniform thickness.
- 10.5 Maximum height of wall built on any day shall not be more than 1.2 metres (i.e. 6 layers).



- 10.6 The joints in the masonry shall be recessed and no flush pointing shall be done.
- 10.7 A slip membrane with PVC sheet of minimum thickness 400 micron, shall be introduced as per the recommendation of blocks manufacturer before laying the first course on the plinth beam.
- 10.8 The blocks shall not be soaked in water and instead they shall be dipped in water and taken out immediately to have only moist surface.
- 10.9 The vertical joints of the masonry shall be broken to have a minimum overlap of 100 mm.
- 10.10 2 Nos 6mm dia reinforcement bars may be placed in the joints after every 3rd course as per the nomenclature of item, to have good lateral stability.
- 10.11 It shall be ensured that the lintels are rested at either end of window opening only on full block and not on half or part blocks reinforcement shall be placed in the sill course of window openings in two successive horizontal joints and extend the same at least to 600 mm on either side of the jamb surface.
- 10.12 At a RCC column interface an MS anchor ("L" shape), of size 50x4 mm, 300 mm long out of which 100 mm length of L fixed on column using minimum two SS screws with PVC sleeves and 200 mm side of L embedded in masonry, be placed and fixed with screws at every 4th course so as to anchor the wall with RCC column for better lateral stability. The anchor shall be got approved from Engineer-in-Charge.
- 10.13 Curing of the masonry shall be done only by spraying water and no flooding shall be done by water jets / buckets.
- 10.14 The chases in the wall surface for electrical conduits shall be done only by means of electrically operated saw to cut two parallel lines and the portion between the cuts shall be chiseled carefully. The depth of vertical chases should be limited to 1/3 rd of wall thickness and horizontal chases should not be more than 1/6th of wall thickness. The chases have to be properly packed with cement mortar 1:4 (1 cement: 4 sand) between pipes and chases.
- 10.15 The blocks shall be cut using a carpenter saw or cutting machine to have half blocks or any other suitable size block to close the masonry course or to break the vertical joint from the bottom course. Hammer or a masons trowel shall not be used to cut the blocks.
- 10.16 GI wire mesh shall be fixed on all column wall and beams- wall junctions before taking up the plaster work.
- 10.17 The rates of the item for AAC blocks, includes all the elements described above, except at para 10.16 above or otherwise specified in the nomenclature of the item.

## **11.0 EQUIPMENTS AND PLANTS (Refer Clause 18 of Schedule 'F')**

- 11.1 The contractor has to deploy necessary tools & plants in required numbers to ensure smooth & timely execution of work, at his own cost & risk as per the requirement of work at different stages. The decision of Engineer-in-Charge shall be final regarding use of particular T&P(s) at a particular time(s) & the contractor has to adhere to the same strictly. The following description & quantum of T&P is given for general guidance which is not mandatory. However, the successful contractor shall give a list of tools and plants which he proposes to deploy to ensure smooth and timely execution as per

different milestone fixed and timely completion of work while submitting the programme and progress chart.

I.	Fully Automatic Concrete Batching Plant (25.00 cum/Hrs.)	1 No.
II.	Steel Centering and shuttering	1500 sqm
III.	Excavator Cum Loader.	2 No.
IV.	Concrete mixer with hopper.	2 Nos.
V.	Plate Vibrator.	2 Nos.
VI.	Needle Vibrator.	4 Nos.
VII.	Bar Bending Machine.	2 No.
VIII	Bar Cutting Machine.	2 No.
IX	Compressor 5 cmm.	1 No.
X	Earth compactor 2 T	1 No.
XI	Floor grinding machine	2 Nos.
XII	Welding machine	2 Nos.
XIII	DG Set(63 KVA) (One shall be suitable for batching plant)	2 Nos.
XIV	Grinder, Drilling machine etc.	2 Nos.
XV	Water Pump	4 Nos.
XVI	Chase cutter	2 Nos.
XVII	Concrete Pump	1 No.
XVIII	Crane suitable for height upto 30 Mtr.	1 No.

- 11.2 To achieve the program of work as per programme the contractor must bring at site the required shuttering materials required for cement concrete and RCC work etc. within 30 days from the date of start of work. All other equipments shall be brought, installed and commissioned at site of work at least one week before their actual planned use at site. Work shop facilities for fabrication/addition and alterations, and other allied works shall be arranged by the contractor at his own cost.
- 11.3 The list of equipment/T&P/machinery as per para 11.1 is for general guidance. In addition to these, machinery / equipment as required shall be arranged by the contractor in case the requirement at any stage exceeds as per the programme finalized at his own cost and nothing extra whatsoever on this account shall be paid. This includes equipment for arrangement of concrete from RMC producing plants also.
- 11.4 All the equipment, T&P and machinery shall be kept in good condition.

## 12.0 SAFETY MEASURES AT CONSTRUCTION SITE

In order to ensure safe construction, following shall be adhered for strict compliance at the site:-

- (i) The work site shall be properly barricaded.
- (ii) Adequate signage indicating 'Work in Progress – Inconvenience caused is Regretted' or Diversion Signs shall be put on the sites conspicuously visible to the public even during night hours. These are extremely essential where works are carried out at public places in use by the public.
- (iii) The construction malba at site shall be regularly removed on daily basis.
- (iv) All field officials and the workers must be provided with safety helmets, safety shoes and safety belts.
- (v) Proper MS pipe scaffoldings with work – platforms and easy-access ladders shall be provided at site to avoid accidents.
- (vi) Necessary First-Aid kit shall be available at the site.

The above provisions shall be followed in addition to the provisions of General Condition of Contract.

**13.0 LIST OF EQUIPMENT FOR SITE LABORATORY TO BE MADE AVAILABLE BY THE CONTRACTOR AT HIS OWN COST (Refer Clause 10 A of Schedule 'F')**

**Laboratory testing instruments.**

- (1) Balances
  - i. 7 Kg. to 10 Kg. capacity, semi-self indicating type – accuracy 10 gm.-1 No.
  - ii. 500 gm. Capacity, semi-self indicating type – accuracy 1 gm.- 1 No.
  - iii. Pan balance – 5 Kg. capacity – accuracy 10 gms.-1 No.
- (2) Ovens—electrically operated, thermostatically controlled upto 110<sup>0</sup> C—sensitivity 1<sup>0</sup> C. – 1 No.
- (3) Sieves : as per IS 460 – 1962.
  - i. I.S. sieves – 450 mm internal dia, of sizes 100mm, 80 mm, 63 mm, 50mm, 40 mm, 25mm, 20 mm, 12.5 mm, 10 mm, 6.3mm, 4.75 mm, 2.36mm complete with lid and pan. – 1 Set
  - ii. I.S. sieves - 200 mm internal dia (brass frame) consisting of 2.36 mm, 1.18 mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan. – 1 Set
- (4) Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly - 1 No.
- (5) Equipment for slump test—slump cone, steel plate, tamping rod, steel scale, scoop-2sets
- (6) Dial gauges, 25 mm travel – 0.01 mm / division least count – 2 Nos.
- (7) 100 tones compression testing machine, electrical cum manually operated. – 1 No.
- (8) Graduated measuring cylinders 200 ml capacity – 6 Nos.
- (9) Enamel trays (for efflorescence test for bricks).
  - i. 300 mm X 250 mm X 40 mm – 2 Nos. } 10 Set
  - ii. Circular plates of 2850 mm dia – 4 Nos. }

**B. Field testing instruments.**(Following instruments in sufficient quantity as directed by the Engineer- in- Charge shall be made available by the contractor. It shall be ensured that the instruments always remain in serviceable condition else the same will be replaced.

- (1) Steel tapes – 3 m.
- (2) Vernier Calipers.
- (3) Micrometer screw 25 mm gauge.
- (4) A good quality plumb bob.
- (5) Spirit level, minimum 30 cms long with 3 bubbles for horizontal vertical.
- (6) Wire gauge (circular type) disc.
- (7) Foot rule.
- (8) Long nylon thread.
- (9) Rebound hammer for testing concrete
- (10) Dynamic penetrometer.
- (11) Magnifying glass
- (12) Screw driver 30 cms long

- (13) Ball pin hammer, 100 gms.
- (14) Plastic bags for taking samples
- (15) Moisture meter for timber
- (16) Earth resistance tests
- (17) Meggar
- (18) Total station

**14.0 SPECIFICATIONS FOR FLY ASH BRICKS** - All fly ash bricks as brought to the site shall conform to the strength & durability parameters as prescribed in the tender and CPWD specifications.

**15.0 The contractor shall submit 'Method Statement' for the approval soon after the award of work.** 'Method Statement' is a statement by which the construction procedures for important activities of construction are stated, checked and approved. Method Statement shall have description of the item with elaborate procedures in steps to implement the same. The specification of the materials involved their testing and acceptance criteria, equipments to be used, precautions to be taken, mode of measurements etc.

**16.0 TESTING OF MATERIALS.**

16.1 The contractor shall arrange carrying out of all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and shall bear all charges in connection therewith including fee for testing except testing charges for cement. For cement the same shall be governed by para sl. no. 7.4 of particular specifications and special conditions of NIT. In all cases cost of samples and to & fro carriage shall be borne by the contractor. Contractor shall establish a laboratory at site of work at his own cost. The laboratory shall be equipped with all necessary equipment as per requirement of specification or as per direction of Engineer-in-Charge. A list of laboratory equipments to be maintained by the contractor is enclosed at para sl. no. 13 of Particular Specifications and special conditions of NIT. Establishing the laboratory at site shall not absolve the contractor from fulfilling the criteria of getting the test done in independent approved laboratories as per DG/MAN/359. The decision of the Engineer-in-Charge of allowing any test in the site laboratory shall be final.

16.2 Even ISI marked materials may be subjected to quality test at the discretion of the Engineer-in-charge besides testing of other materials as per the specifications described for the item/material. Whenever ISI marked materials are brought to the site of work the contractor shall, if required by the Engineer-in-charge, furnish manufacturer test certificate or test certificate from approved testing laboratory to establish that the material procured by the contractor for incorporation in the work satisfy the provisions if IS codes relevant to the material and/or the work done.

16.3 Sub-standard Material/Work : In case any material/work is found substandard the same shall be rejected by the Engineer-in-Charge and the same shall be removed from the site of work within 48 hour, failing which the same shall be got removed by the Engineer-in-Charge at the risk and cost of the contractor without giving any further notice and time.

**17.0 CONDITIONS OF CONTRACT SPECIFIC TO GREEN BUILDING PRACTICES**

The contractor shall strictly adhere to the following conditions as part of his contractual obligations:

17.1 SITE

17.1.1 The contractor shall ensure that adequate measures are taken for the prevention of erosion of the top soil during the construction .The contractor shall prepare and

implement the Erosion and Sedimentation Control Plan (ESCP) provided to him after approval by the Engineer-in-Charge as part of the larger Construction Management Plan

(CMP). The contractor shall obtain the Erosion and Sedimentation Control Plan (ESCP) Guidelines if required from the Engineer in Charge and then prepare "working plan" for the following month's activities as a CAD drawing showing the construction management, staging & ESCP. At no time soil should be allowed to erode away from the site and sediments should be trapped where necessary.

The contractor shall ensure that all the top soil excavated during construction works is neatly stacked and is not mixed with other excavated earth. The contractor shall take the clearance of the Engineer in Charge before any excavation. Top soil should be stripped to a depth of 20 cm (centimeters) from the areas to be disturbed, for example proposed area for buildings, roads, paved areas, external services and area required for construction activities etc. It shall be stockpiled to a maximum height of 40 cm in designated areas, covered or stabilized with temporary seeding for erosion prevention and shall be reapplied to site during plantation of the proposed vegetation or as directed by the engineer in charge. Top soil shall be separated from subsoil, debris and stones larger than 50 mm (millimeter) diameter. The stored top soil may be used as finished grade for planting areas.

- 17.1.2 The Contractor should follow the construction plan as proposed by the Architect / Engineer in Charge to minimize the site disturbance such as soil pollution due to spilling. If required use of staging and spill prevention and control plan to restrict the Spilling of the contaminating material on site needs to be resorted. Protection of top soil from erosion by collection storage and reapplication of top soil, constructing sediment basin, contour trenching, mulching etc., may also be directed by the engineer in charge.
- 17.1.3 No excavated earth shall be removed from the campus unless suggested otherwise by Engineer in Charge. All subsoil shall be reused in backfilling/landscape, etc as per the instructions of the Engineer in Charge. The surplus excavated earth shall be disposed of by the contractor as per the direction of the engineer in charge at his own cost for reuse. A certificate of reuse as required by the Engineer-in-Charge shall be submitted by the contractor.
- 17.1.4 The contractor shall not change the natural gradient of the ground unless specifically instructed by the Engineer in Charge. This shall cover all natural features like water bodies, drainage gullies, slopes, mounds, depressions, etc. Existing drainage patterns through or into any preservation area shall not be modified unless specifically directed by the Engineer-in-Charge.
- 17.1.5 The contractor shall not carry out any work which results in the blockage of natural drainage.
- 17.1.6 The contractor shall ensure that existing grades of soil shall be maintained around existing vegetation and lowering or raising the levels around the vegetation is not allowed unless specifically directed by the Engineer-in-Charge.
- 17.1.7 Contractor shall reduce pollution and land development impacts from automobiles use during construction.
- 17.1.8 Overloading of trucks is unlawful and creates the erosion and sedimentation problems, especially when loose materials like stone dust, excavated earth, sand etc. are moved. Proper covering shall be used by the contractor. Also, no overloading shall be permitted.
- 17.2 CONSTRUCTION PHASE AND WORKER FACILITIES
- 17.2.1 The contractor shall specify and limit construction activity in pre-planned/designated areas and shall start construction work after securing the approval for the same from the

Engineer in Charge. This shall include areas of construction, storage of materials, and material and personnel movement.

17.2.2 Preserve and Protect Landscape during Construction

- a The contractor shall ensure that no trees, existing or otherwise, shall be harmed and damage to roots. These shall be prevented during trenching, placing backfill, driving or parking heavy equipment, dumping of trash and protected from oil, paint, and other materials detrimental to plant health. These activities shall be restricted to the areas outside of the canopy of the tree, or, from a safe distance from the tree/plant by means of barricading. Trees will not be used for support; their trunks shall not be damaged by cutting and carving or by nailing posters, advertisements or other material. Lighting of fires or carrying out heat or gas emitting construction activity within the ground, covered by canopy of the tree is not at all permitted.
- b The contractor shall take steps to protect trees or saplings if any identified for preservation within the construction site using tree guards of approved specification.
- c Contractor should limit all construction activity within the specified area as per the Construction Management Plan (CMP) approved by Engineer in Charge.
- d The contractor shall avoid cut and fill in the root zones, through delineating and fencing the drip line (the spread limit of a canopy projected on the ground) of all the trees or group of trees. The zones of movement of heavy equipment, parking, or excessive foot traffic shall be separated from the fenced plant protection zones.
- e The contractor shall ensure that maintenance activities during construction period shall be performed as needed to ensure that the vegetation remains healthy.

17.2.3 Contractor shall be required to develop and implement a waste management plan, quantifying material diversion goals. He shall establish goals for diversion from disposal in landfills and incinerators, if required, and adopt a construction waste management plan to achieve these goals. A project wide policy of "Nothing leaves the Site" shall be followed. The Contractor's ingenuity is especially called towards meeting this prerequisite/ credit (as per IGBC LEED India, New Construction v1.0 & GRIHA , MNRE ) and may consider recycling cardboard, metal, brick, acoustical tile, concrete, plastic, clean wood, glass, gypsum wallboard, carpet and insulation, designating a specific area(s) on the construction site for segregated or commingled collection of recyclable material, and track recycling efforts throughout the construction process, identifying construction haulers and recyclers to handle the designated materials at his cost. The diversion may include donation of materials to charitable organizations and salvage of materials on-site.

17.2.4 Contractor shall collect all construction waste generated on site. He may consider at segregating wastes based on their utility and examine means of sending such waste to manufacturing units which use them as raw material or other site which require it for specific purpose. Typical construction debris could be broken bricks, steel bars, broken tiles, spilled concrete and mortar etc.

17.2.5 The contractor shall provide potable water and other amenities for all workers as per the contract.

17.2.6 The contractor shall provide the minimum level of sanitation and safety facilities for the workers at site as described in CPWD General Conditions of contract. The contractor shall ensure cleanliness of workplace with regard to the disposal of waste and effluent;

provide clean drinking water and latrines and urinals as per applicable provisions. Adequate toilet facilities shall be provided for the workmen within easy access of their place of work. The total no. to be provided shall not be less than 1 per 30 employees in any one shift. Toilet facilities shall be provided from the start of building operations, connection to a sewer shall be made as soon as practicable. Every toilet shall be so constructed that the occupant is sheltered from view and protected from the weather and falling objects. Toilet facilities shall be maintained in a sanitary condition. A sufficient quantity of disinfectant shall be provided and natural or artificial illumination shall also be provided.

- 17.2.7 The contractor shall ensure that air pollution due to dust/generators is kept to a minimum, preventing any adverse effects on the workers and other people in and around the site. The contractor shall ensure proper screening, covering stockpiles, covering brick and loads of dusty materials, wheel-washing facility, gravel pit, and water spraying. Contractor shall also ensure the following activities to prevent air pollution during construction:
- Clear vegetation only from areas where work will start right away
  - Vegetate / mulch areas where vehicles do not ply.
  - Apply gravel / landscaping rock to the areas where mulching / paving is impractical
  - Identify roads on-site if applicable that would be used for vehicular traffic. Upgrade vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral types that make up the surface & base and add surface gravel to reduce source of dust emission to limit amount of fine particles (smaller than 0.075mm) to 10 – 20%
  - Water spray, through a simple hose for small projects, to keep dust under control. Fine mists should be used to control fine particulate. However, this should be done with care so as not to waste water. Heavy watering can also create mud, which when tracked onto paved public roadways, must be promptly removed. Also, there must be an adequate supply of clean water nearby to ensure that spray nozzles don't get plugged.
  - Water spraying shall be done on:
- 17.2.7.1 Any dusty materials before transferring, loading and unloading
- 17.2.7.2 Area where demolition work is being carried out
- 17.2.7.3 Any un-paved main haul road
- 17.2.7.4 Areas where excavation or earth moving activities are to be carried out
- The contractor shall ensure that the speed of vehicles within the site is limited to 10 km/hr.
  - All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust / particulate emissions.
  - Spills of dirt or dusty materials will be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil / ground or runoff in nearby areas
  - Provide hoardings of not less than 3m high along the site boundary, next to a road or other public area at his cost.

- Provide dust screens, sheeting or netting to scaffold along the perimeter of the building at his cost
  - Cover stockpiles of dusty material with impervious sheeting at his cost.
  - Cover dusty load on vehicles by impervious sheeting before they leave the site at his cost.
- 17.2.8 Contractor shall be required to provide an easily accessible area that serves the entire building and is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals. He shall coordinate the size and functionality of the recycling areas with the anticipated collections services for glass, plastic, office paper, newspaper, cardboard, and organic wastes to maximize the effectiveness of the dedicated areas. Consider employing cardboard balers, aluminium can crushers, recycling chutes, and collection bins at individual workstations to further enhance the recycling program
- 17.2.9 The contractor shall ensure that no construction leachate (e.g. cement slurry etc.), is allowed to percolate into the ground. Adequate precautions will be taken to safeguard against this including reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/swale, etc. shall be constructed to carry the pollutant-laden water directly to the treatment device or facility (municipal sewer line).
- 17.2.10 Staging (dividing a construction area into two or more areas to minimize the area of soil that will be exposed at any given time) should be done to separate undisturbed land from land disturbed by construction activity and material storage.
- 17.2.11 The contractor shall comply with the safety procedures, norms and guidelines (as applicable) as outlined in the document Part 7 Constructional practices and safety, 2005, National Building code of India, Bureau of Indian Standards. A copy of all pertinent regulations and notices concerning accidents, injury and first-aid shall be prominently exhibited at the work site. Depending upon the scope & nature of work, a person qualified in first-aid shall be available at work site to render and direct first-aid to casualties. A telephone may be provided to first-aid assistant with telephone numbers of the hospitals displayed. Complete reports of all accidents and action taken thereon shall be forwarded to the competent authorities.
- 17.2.12 The contractor shall ensure the following activities for construction workers safety, among other measures at his cost.
- Guarding all parts of dangerous machinery.
  - Precautionary signs for working on machinery
  - Maintaining hoists and lifts, lifting machines, chains, ropes, and other lifting tackles in good condition.
  - Durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
  - Ensuring that walking surfaces or boards at height are of sound construction and are provided with safety rails or belts.
  - Provide protective equipment; helmets etc.
  - Provide measures to prevent fires. Fire extinguishers and buckets of sand to be provided in the fire-prone area and elsewhere.



- Provide sufficient and suitable light for working during night time.
- 17.2.13 The storage of material shall be as per standard good practices as specified in Part 7, Section 2 - Storage, Stacking and Handling practices, NBC 2005 and shall be to the satisfaction of the Engineer in Charge to ensure minimum wastage and to prevent any misuse, damage, inconvenience or accident. Watch and ward of the Contractor's materials shall be his own responsibility. There should be a proper planning of the layout for stacking and storage of different materials, components and equipments with proper access and proper maneuverability of the vehicles carrying the materials. While planning the layout, the requirements of various materials, components and equipments at different stages of construction shall be considered.
- 17.2.14 The contractor shall provide for adequate number of garbage bins around the construction site and the workers facilities and will be responsible for the proper utilization of these bins for any solid waste generated during the construction. The contractor shall ensure that the site and the workers facilities are kept litter free. Separate bins should be provided for plastic, glass, metal, biological and paper waste and labelled in both Hindi and English with suitable symbols.
- 17.2.15 The contractor shall prepare and submit 'Spill prevention and control plans' before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.
- 17.2.15.1 Contractor shall collect & submit the relevant material certificates for materials if directed by the Engineer in charge with high recycled (both post-industrial and post-consumer) content, including materials like RMC mix with fly-ash, glass with recycled content, calcium silicate boards etc.
- 17.2.16 Contractor shall collect the relevant material certificates for rapidly renewable materials such as bamboo, wool, cotton insulation, agrifiber, linoleum, wheat board, strawboard and cork etc.
- 17.2.17 Where possible, the contractor shall select materials / vendors, harvested and manufactured regionally, within a 800-km radius of the project site.
- 17.2.18 Contractor shall adopt an IAQ (Indoor Air Quality) management plan to protect the HVAC system during construction, control pollutant sources, and interrupt pathways for contamination. He shall sequence installation of materials to avoid contamination of absorptive materials such as insulation, carpeting, ceiling tile, and gypsum wallboard. He shall also protect stored on-site or installed absorptive materials from moisture damage.
- 17.2.19 The contractor shall ensure that a flush out of all internal spaces is conducted prior to handover. his shall comprise an opening of all doors and windows for 14 days to vent out any toxic fumes due to paints, varnishes, polishes, etc.
- 17.2.20 Contractor shall make efforts to reduce the quantity of indoor air contaminants that are odorous or potentially irritating harmful to the comfort and well-being of installer and building occupants. Contractor shall ensure that the VOC (Volatile Organic

Compounds) content of paints, coatings and primers used must not exceed the VOC content limits mentioned below in case items of such paints are/is available in schedule of quantities.

**Paints**

Non-flat - 150 g/L Flat (Mat) - 50, g/L Anti corrosive/ anti rust - 250 g/L

**Coatings / Clear wood finishes**

Varnish - 350 g/L Lacquer - 550 g/L Floor coatings - 100 g/L Stains - 250 g/L

**Sealers**

Waterproofing sealer - 250 g/L Sanding sealer - 275 g/L Other sealers - 200 g/L

- 17.2.21 The VOC (Volatile Organic Compounds) content of adhesives and sealants used if prescribed in the schedule of quantities must be less than VOC content limits mentioned: **Architectural Applications** VOC Limit (g/l less water)  
Indoor Carpet adhesives - 50 g/L, Carpet Pad Adhesives - 50 g/L, Wood Flooring Adhesive - 100 g/L, Rubber Floor Adhesives - 60 g/L, Sub Floor Adhesives – 50 g/L, Ceramic Tile Adhesives - 65 g/L, VCT and Asphalt Tile adhesives - 50 g/L, Dry Wall and Panel Adhesives - 50 g/L, Structural Glazing Adhesives - 100 g/L, Multipurpose Construction Adhesives – 70 g/L, Substrate Specific Application VOC Limit (g/l less water), Metal to Metal - 30 g/L, Plastic Foams - 50 g/L, Porous material (except wood) - 50 g/L, Wood - 30 g/L, Fiber Glass – 80 g/L
- 17.2.22 Wherever required, Contractor shall meet and carry out documentation of all activities on site, supplementation of information, and submittals in accordance with IGBC LEED India New Construction v1.0 or GRIHA program standards and guidelines. Towards meeting the aforementioned building environmental rating standard(s) expert assistance shall be provided to him up on request.
- 17.2.23 Water Use during Construction Contractor should spray curing water on concrete structure and shall not allow free flow of water. Concrete structures should be kept covered with thick cloth / gunny bags and water should be sprayed on them. Contractor shall do water ponding on all sunken slabs using cement and sand mortar.
- 17.2.24 The Contractor shall remove from site all rubbish and debris generated by the Works and keep Works clean and tidy throughout the Contract Period. All the serviceable and non-serviceable (malba) material shall be segregated and stored separately. The malba obtained during construction shall be collected in well formed heaps at properly selected places, keeping in a view safe condition for workmen in the area. Materials which are likely to cause dust nuisance or undue environmental pollution in any other way, shall be removed from the site at the earliest and till then they shall be suitable covered. Glass & steel should be dumped or buried separately to prevent injury. The work of removal of debris should be carried out during day. In case of poor visibility artificial light may be provided.
- 17.2.25 The contractor shall provide O & M Manuals wherever applicable.
- 17.2.26 The contractor shall make himself conversant with the Site Waste Management Program Manual and actively contribute to its compilation by estimating the nature and volume of waste generated by the process/installation in question.

## 17.2.27 MATERIALS &amp; FIXTURES FOR THE PROJECT

- a) Contractor will produce wherever feasible certificate regarding distance of the source of the relevant material.
- b) Unless otherwise stated cement used at site for reinforced concrete, precast members, mortar, plaster, building blocks, etc shall be PPC (Portland Puzzolana Cement). The PPC must meet the requirements of IS 1489 (Part I) as regards to fly ash content in cement. The contractor shall obtain from the PPC manufacturer the certificate regarding fly ash content in the PPC in each batch of consignment.
- c) The contractor has to comply as per MoEF issued notification 8.0.763(E) dated 14th Sept.1999 containing directive for greater fly ash utilization. Every construction agency engaged in the construction of buildings within a radius of 50 km radius of a Thermal Power Plant, have to use of 100% fly ash based bricks/blocks in their construction.
- d) The contractor shall ensure that all paints, polishes, adhesives and sealants used both internally and externally, on any surface, shall be Low VOC products. The contractor shall get prior approval from the Engineer in Charge before the application of any such material.
- e) All plumbing and sanitary fixtures installed shall be as per the prescription of the Engineer in Charge and shall adhere to the minimum LPM (litres per minute) and LPF (litres per flush) mentioned. The contractor shall employ 100% zero ODP (ozone depletion potential) insulation; HCFC (hydro-chlorofluorocarbon)/ and CFC (chlorofluorocarbon) free HVAC and refrigeration equipments and / halon-free fire suppression and fire extinguishing systems.
- f) The contractor shall ensure that all composite wood products/agro-fibre products used for cabinet work, etc do not contain any added urea formaldehyde resin.

## 17.2.28 RESOURCES CONSUMED DURING CONSTRUCTION

- a. The contractor shall ensure that the water and electricity is not wasted during construction. The Engineer in Charge can bring to the attention any such wastage and the contractor will have to ensure that such bad practices are corrected.
- b. The contractor shall install necessary meters and measuring devices to record the consumption of water, electricity and diesel on a monthly basis for the entire tenure of the project.
- c. The contractor shall ensure that all run-off water from the site, during construction is collected and reused to the maximum.
- d. The contractor shall use treated recycled water of appropriate quality standards for construction, if available.
- e. No lights shall be turned on during the period between 6:00 AM to 6:00 PM, without the permission of the Engineer in Charge.

## 17.2.29 CONSTRUCTION WASTE

Contractor shall ensure that wastage of construction material is within 3%.

- a) All construction debris generated during construction shall be carefully segregated and stored in a demarcated waste yard. Clear, identifiable areas shall be provided for each waste type and measures employed to segregate the waste on site into inert, chemical, or hazardous wastes.
- b) All construction debris shall be used for road preparation, back filling, etc, used if

described in the schedule of quantities and as per the instructions of the Engineer in Charge, with necessary activities of sorting, crushing, etc.

- c) No construction debris shall be taken away from the site, without the prior approval of the Engineer in Charge.
- d) The contractor shall recycle the unused chemical/hazardous wastes such as oil, paint, batteries, and asbestos.
- e) If and when construction debris is taken out of the site, after prior permissions from the Engineer in Charge, then the contractor shall ensure the safe disposal of all wastes and will only dispose of any such construction waste in approved dumping sites.

#### 17.2.30 Documentation

- a) The contractor shall, during the entire tenure of the construction phase, submit the following records to the Engineer in Charge on a monthly basis:
  - i) Water consumption in litres
  - ii) Electricity consumption in 'kwh' units
  - iii) Diesel consumption in litres
  - iv) Quantum of waste (volumetric/weight basis) generated at site and the segregated waste types divided into inert, chemical and hazardous wastes.
  - v) Digital photo documentation to demonstrate compliance of safety guidelines as specified here and in the Appendix on Safety Conditions.
- b) The contractor shall, during the entire tenure of the construction phase, submit the following records to the Engineer in Charge on a fortnightly basis:
  - i) Quantities of material brought into the site, including the material issued to the contractor by the Engineer in charge.
  - ii) Quantities of construction debris (if at all) taken out of the site
  - iii) Digital photographs of the works at site, the workers facilities, the waste and other material storage yards, pre-fabrication and block making works, etc as guided by the Engineer in Charge.
- c) The contractor shall submit a document after construction of the buildings, a brief description along with photographic records to show that other areas have not been disturbed during construction. The document should also include brief explanation and photographic records to show erosion and sedimentation control measures adopted. (Document CAD drawing showing site plan details of existing vegetation, existing buildings, existing slopes and site drainage pattern, staging and spill prevention measures, erosion and sedimentation control measures and measures adopted for top soil preservation during construction
- d) The contractor shall submit to the Engineer in Charge after construction of the buildings, a detailed as built quantification of the following:
  - i. Total materials used,
  - ii. Total top soil stacked and total reused
  - iii. Total earth excavated
  - iv. Total waste generated,
  - v. Total waste reused,
  - vi. Total water used,

- vii. Total electricity, and
  - viii. Total diesel consumed.
- e) The contractor shall submit to the Engineer in Charge, before the start of construction, a site plan along with a narrative to demarcate areas on site from which top soil has to be gathered, designate area where it will be stored, measures adopted for top soil preservation and indicate areas where it will be reapplied after construction is complete.
- f) The contractor shall submit to the Engineer in Charge, a detailed narrative (not more than 250 words) on provision for safe drinking water and sanitation facility for construction workers and site personnel.
- g) Provide supporting document from the manufacturer of the cement specifying the fly-ash content in PPC used in reinforced concrete.
- h) Provide supporting document from the manufacturer of the pre-cast building blocks specifying the fly ash content of the blocks used in an infill wall system.
- i) The contractor shall, at the end of construction of the buildings, submit to the Engineer in Charge, submit following information, for all material brought to site for construction purposes, including manufacturer's certifications, verifying information, and test data, where Specifications sections require data relating to environmental issues including but not limited to:
- i)** Source of products: Supplier details and location of the supplier.
  - ii)** Project Recyclability: Submit information to assist Owner and Contractor in recycling materials involved in shipping, handling, and delivery, and for temporary materials necessary for installation of products.
  - iii)** Recycled Content: Submit information regarding product post industrial recycled and post consumer recycled content. Use the "Recycled Content Certification Form", to be provided by the Commissioning Authority appointed for the Project.
  - iv)** Product Recyclability: Submit information regarding product and product's component's recyclability including potential sources accepting recyclable materials where ever applicable.
- j) Provide final certification of well-managed forest of origin to provide final documentation of certified sustainably harvested status: Acceptable wood "certified sustainably harvested" certifications shall include:
- a) Wood suppliers' certificate issued by one of the Forest Stewardship Council-accredited certifying agencies;
  - b) Suppliers' invoice detailing the quantities of certified wood products for project;
  - c) Letter from one of a certifying agency corroborating that the products on the wood supplier's invoice originate from certified well-managed forests.
- i)** Clean tech: Provide pollution clearance certificates from all manufacturers of materials
  - ii)** Indoor Air quality and Environmental Issues: Submit emission test data, sourced from the manufacturers, produced by acceptable testing laboratory listed in Quality Assurance Article for materials as required in each specific Specification section.
    - a) Certifications from manufacturers of Low VOC paints, adhesives, sealant and polishes used at this particular project site.
    - b) Certification from manufacturers of composite wood products/agro fibre products on the absence of added urea formaldehyde resin in the products supplied to them to this particular site.
    - c) Submit environmental and pollution clearance certificates for all diesel generators

installed as part of this project.

Provide total support to Engineer in Charge and Green Building Consultants appointed by the Engineer-in-Charge in completing all Green Building Rating related formalities, including signing of forms, providing signed letters in the contractor's letterhead whenever required.

#### 17.2.31 EQUIPMENT

- a) To ensure energy efficiency during and post construction all pumps, motors and engines used during construction or installed, shall be subject to approval and as per the specifications of the Engineer in Charge.
- b) All lighting installed by the contractor around the site and at the labour quarters during construction shall be CFL bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed.

The contractor is expected to go through all other conditions of the LEED & GRIHA rating stipulations.

Failure to adhere to any of the above mentioned items, without approval of the Engineer in Charge, shall be deemed as a violation of contract and the contractor shall be held liable for penalty as per terms of the agreement.

### **18.1 Formwork for exposed concrete surfaces:-**

18.1.1 Where it is specifically shown on the drawings to have original fair face finish of concrete surface without any rendering of plastering, formwork shall be carried put by using plywood on steel plates of approved quality.

18.1.2 The forms shall be constructed so as to produce a uniform and consistent texture and pattern on the face of the concrete. The formwork shall be placed so that all horizontals are constructed of lumber and are not paneled and the formwork joints shall be staggered.

18.1.3 To achieve a finish which shall be free of board marks, the formwork shall be faced with plywood or equivalent material in large sheets. The sheets shall be arranged in an approved pattern. Whenever possible, joints between sheets shall be arranged to coincide with architectural feature, sills, window heads or change in direction of surface. All joints between panels shall be vertical or horizontal unless otherwise directed. Suitable joints shall be approved between sheets. The joints shall be arranged and fitted so that no blemish or mark is imparted to the finished surfaces.

18.1.4 Forms for exposed concrete surfaces shall be constructed with grade strips (the underside of which indicate top of pour) at horizontal constructions joints, unless the use of groove strips is specified on the drawings. The reset forms shall be tightened against the concrete so that the forms will not be spread and permit abrupt irregularities or loss of mortar. Supplementary form ties shall be used as necessary to hold the reset forms tight against the concrete.

18.1.5 For fair faced concrete, the position of through bolts will be restricted and generally as indicated on the drawings.

18.1.6 Plywood and steel plates used in the formwork for obtaining exposed surfaces shall be got approved from Engineer-in-Charge on each use. However no forms will be allowed for reuse if it is doubtful to produce desired texture of exposed concrete.

18.1.7 Cement of only approved shade shall be used preferably of single lot to achieve integrity of texture.

**18.2 Class of Surface Finish:-****18.2.1 For Beams & Slabs :**

The finish shall be uniform, dense and smooth. no grout, no grain pattern, no crazing and no major blemishes shall be permitted. Abrupt irregularities not exceeding 3mm and gradual irregularities less than 5mm in 2m length only shall be permitted.

**18.2.2 For Columns/Wall/Fins :**

The finish shall be uniform and smooth leveling the surface of the compacted concrete shall be done with a screed board with power floating the surface and over that steel trowelling the surface under firm pressure characteristics of finish shall be brush marks < 3mm gradual irregularities less than 10mm in 2m.

**18.3 Tolerance in Finished Concrete:-**

The formwork shall be so made as to produce a finished concrete true to shape, lines, level, plumb and dimensions as shown in the drawings subject to the following tolerance unless otherwise specified in this specification or drawings.

**18.4 WALL/COLUMN/FINS:**

17.4.1 Variation from the plumb	± 6mm	Upto 3m height
18.4.2 Variation from the plumb of conspicuous liner	± 6mm	Upto 6m height
18.4.3 Variation in the size of wall openings	(+)15mm (-) 6mm	
18.4.4 Variation in parapet wall thickness		
(a) Upto 30cm thickness	± 6mm	

**18.5 SLAB, BEAM & GIRDER FORMS:**

18.5.1 Variation from the level or from the specified grid for beam soffit before removal of shores,

(a) In any 3m	± 6mm
(b) In any 6m	± 10mm

All the tolerances mentioned above shall apply to concrete dimensions only, and not to positioning of vertical steel or dowels. The tolerances given above are specified for local aberration in the finished concrete surface and should not be taken as tolerance for the entire structure taken as whole for the setting and alignment of formwork. Any error, within the above tolerance limits, or any other if noticed in any of the structure after part or portion stripping of forms, shall be corrected in the subsequent work to bring back the structure to its true line, level and alignment.

**19.0** Ultrasonic pulse velocity method test for RCC as per technical circular No. 18 issued vide CE(CSQ) letter No. G-2/SE(QA)/CSQ/69 dated 12.02.2013 shall be carried out as a routine test to assess the homogeneity and uniformity of concrete. The fulfilling criteria and other conditions shall be as detailed, as per the method stated in the aforesaid circular.

**20.0 Conditions for Readymix concrete :-**

- (a) The contractor can use concrete from RMC plants also with prior approval of the Engineer in charge, instead of preparing the same in central batching plant at site within agreement item of Batch Mix Plant without any extra cost, looking to expedite the progress and need of work. However for procuring RMC from approved plant the contractor shall follow the following conditions. Nothing extra shall be payable to the contractor for procuring RMC from the external plant.
- (b) For procurement of ready mix concrete from approved RMC plants, the contractor shall, within a 15 days of award of the work, submit list of at least three RMC plant companies of repute along with details of transit mixer and pumps etc. to be deployed indicating name of owner / company, its location capacity, technical establishment, past experience and text of MOU proposed to be entered between purchaser ( the contractor) and supplier (RMC Plant). The Engineer – in – Charge shall give approval in writing (subject to draw of MOU). 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. 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.
- (c) 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. Including the following controls.
- 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 checks of the RMC.
  - 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.



For exercising such control, the Engineer-in-charge (if required) shall periodically depute his authorized representative at the RMC plant. It shall be responsibility of the contractor to ensure that all-necessary requirement manpower & facilities are made available to Engineer-in-charge and / or his authorized representative at RMC plant.

- (d) The ready mix concrete should be produced in RMC plant using fully automatic batching plant having capacity to produce 30 cum/hr. The plant should have computerized control and shall give print out of all the ingredients.
- (e) All required relevant records of RMC shall be made available to the Engineer-in-charge or his authorized representative. Engineer-in-charge 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.
- (f) 43 grade OPC/ PPC as per schedule of the contract (conforming to relevant IS Codes) of brand / make / source as approved by Engineer-in-charge shall only be used for production of concrete.
- (g) The RMC produced concrete be accepted by Engineer-in-Charge at site after receipt of the same after fulfilling all the requirements of mix mentioned in the tender documents.
- (h) The item of design mix cement concrete shall be inclusive of all the ingredients including admixtures if required, labour, machinery, T&P etc. required for a design mix concrete of required strength and workability. The rate quoted by the agency shall be net & nothing extra shall be payable on account of change in quantities of concrete ingredients like cement and aggregates and admixtures etc. as per the approved mix design.
- (i) Ready mix concrete shall be arranged in quality as required at site of work by transportation in a transit mixer. [The general conditions of transit mixer and other requirement shall conform to IS:5892.] Ready mix concrete shall be supplied as per the pre-agreed schedule approved by Engineer-in-charge.
- (j) All other operations in concreting work like Mixing, Slump, transportation, laying / placing of concrete, compaction, curing etc. not mentioned in this particular specification for Design Mix Concrete shall be as per IS : 456-2000 or amended thereafter.
- (k) For design mix concrete of RCC other than those specified above, the contractor shall use the Design mix concrete produced by a central batching and mixing plant at his own cost. The contractor, if he so desires, can arrange the design mix concrete also from Ready mix concrete producer after obtaining written approval of the Engineer-in-charge. Nothing extra whatsoever shall be payable on this account.

- (l) Ready mix concrete shall be arranged in quantity as required at site of work. The ready mix concrete shall be supplied as per the pre-agreed schedule approved by Engineer-in-charge. Nothing extra shall be payable on this account.
- (m) The item of design mix cement concrete (produced at site as well as arranged from RMC producer) shall be inclusive of all the ingredients including admixtures if required, labour, machinery, transportation etc. (except reinforcement and shuttering which will be measured & paid as per provision of contract) required for a design mix concrete of required strength and workability. The rate quoted by the agency shall be net & nothing extra shall be payable on account of changes in quantities of concrete ingredients like cement and aggregates and admixtures etc. as per approved mix design except for quantity of extra cement payable as per schedule of quantity. Other operations in concreting work like Mixing, Slump, transportation, laying / placing of concrete, compaction, curing etc. not mentioned in this particular specification for Design Mix of Concrete shall be as per IS : 456-2000.

Annexure 'B'

**FORMAT OF RECEIPT OF DEPOSITION OF ORIGINAL EMD  
ALONGWITH NIT :-**

<p><b>Receipt of deposition of original EMD (Receipt No. .... / date.....)</b></p>
<p><b>Name of work :</b> Construction of Dietary services Building at AIIMS Rishikesh.</p> <p><b>1. NIT No.</b>        <b>09 /S.E/Civil /2018-19</b>  <b>2. Estimated Cost ::</b> ₹ 4,00,02,159.00/-</p> <p><b>3. Amount of Earnest money Deposit</b> ₹ 8,00,000.00/  <b>4. Last date of submission of bid ...*.10.09.2018upto 15.00 Hrs.</b></p>
<p><b>1. Name of contractor.....#....</b>  <b>2. Form of EMD .....#....</b>  <b>3. Amount of Earnest Money Deposit .....#....</b>  <b>4. Date of submission of EMD .....#....</b></p> <p style="text-align: right;"><b>Signature, Name and Designation of EMD receiving officer (SE) alongwith stamp</b></p> <p><b>(# To be filled by EMD receiving Superintending Engineer</b></p>

**Annexure - I****(SPECIMEN)****(Ref. para 3.7 of Particular Specifications and Special conditions)****GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECT 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 Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated ..... and made between the **GUARANTOR** of the one part and the Government of the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak – proof.

AND WHEREAS **GUARANTOR** agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for ten years from the date of giving of water proofing treatment.

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;

- (a) Misuse of roof shall mean any operation which will damage water proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
- (b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts;
- (c) The decision of the Engineer-in-charge with regard to cause of leakage shall be final.

During this period of guarantee the **guarantor** shall make good all defects and in case of any defect being found, render the building water –proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for 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 **GUARANTOR** fails to execute the water proofing or commits breach thereunder 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 WHEREOF these presents have been executed by the Obligor ..... and by ..... and for and on behalf of the PRESIDENT OF INDIA on the day, month and year above written.

Signed, sealed and delivered by OBLIGOR in the presence of –

1. ....
2. ....

Signed for and on behalf of Director AIIMS Rishikesh by .....in the presence of –

1. ....
2. ....

### LIST OF APPROVED MATERIALS (CIVIL)

Note :

1. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature or in the particular specifications or in the list of approved materials attached in the tender, shall be used in the work.
2. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material/ Brand/ Make.
3. Whenever the specified brand of material is not available than, the Engineer-in-charge may approve any material equivalent to that specified subject to proof being offered by the Contractor for its equivalence and its non-availability to his satisfaction.

MATERIALS:	BRAND/MAKE
1 AAC Block	Aerocon, Siporex, Ultratech, Ecolite, Concretite, J.K. Laxmi (Cement Ltd.), BILTECH, Kansal, Dlite Blocks
2 AAC Block Adhesive	Ferrous crete(Ferro-1188), ARDEX ENDURA (White Star), Ultratech (Fixed-Block)
3 Acrylic Distemper, Emulsion, Synthetic Enamel Paint and Primer.	Asian Paints, ICI Dulux, Berger, Nerolac
4 Epoxy Adhesive	FOSROC, Aquomix , Choksey, BAL-ENDURA,MYK Laticrete
5 Aluminium Composite Panel	Alpolic, Aluco Bond, Reynobond, Euro bond, Alstrong
6 Aluminium Extrusions	Hindalco, Indalco, Jindal
7 Aluminum Sections	Jindal, Hindalco, Indalco
8 Annealed Float Glass	Saint Gobain, Modi Guard, Asahi
9 Bitumen	Indian Oil, Hindustan Petroleum, Bharat Petroleum
10 Calcium Silicate Board / Tiles	Aerolite, Hilux, Starpan
11 CC Pavers / Grass Pavers	Nitco, Hindustan, Ultra, KJS Concrete, Duracrete, Mehtab Tiles, Kaptim
12 Centrifugally Cast Iron Pipe & Fittings	NECO, SKF, BIC, RIF, KAPILANSH, HIF
13 Ceramic Tiles	Kajaria, Nitco, Orient Bell, Johnson, RAK Ceramics
14 Chequered / Tactile Tiles	Dura, Eurocon, Modern, Hindistan, Johnson, Eavison
15 CI Manhole Cover	BIC, SKF, NICO, Hepco, Kapilansh, RIF
16 CI Double flanged non-return valves	Kirloskar, Sant, Kartar
17 CP fittings	Jaquar, Marc, Kohler, Grohe
18 CPVC Pipes & Fittings	Astral Flowguard, Ashirvad, Prince, Supreme, Finolux, VECTUS
19 Curtain Carrier / Drapery Rod	Marvel, Vista levlor, Johnson.
20 Dash fastener, Expansion Bolt	Hilti, Bosch Fischer
21 Hydraulic Door closer, Floor springs	Dorma, Hettich, Hafele, Geze
22 Ductile Iron Pipe (Water Supply)	Electro steel, Kesso, KDUPL, Electro Spun
23 EPDM Gasket	Hanu, Anand, Lescuyer
24 GRC / Tactile Tile	Unistone, Eurocon, Dazzle
25 Epoxy Grouting Compound	Pidilite, Ferrous Crete(Ferro-102), MYK LATICRETE, Fosrock
26 Epoxy Primer & Paints	Berger, Pidilite, CICO, BASF, SIKA, Fosrock
27 Fire Check door	Navair, Godrej, Shakti
28 Float Glass Mirror	Modifloat, Saint Gobain, Asahi
29 Flush Doors (ISI Mark only)	Century, Kitlam, Archid, Greenply, Marino, Duro, Gujcon
30 Friction Stay	Earl-Bihari, Geze, Hettich, Securistyle
31 Galvanized/Stainless Steel Anchor Fasteners	Shakti, Arrow, Hilti, Fischer
32 GI Pipe & fittings	Tata, Zenith, Jindal, Prakash Surya, Swastik; (ISI Marked only)
33 GI Sheet	Sail, TATA, Jindal or equivalent
34 Gun Metal Gate Valve	Zoloto, Leader, SANT, Prima
35 Glass Mosaic Tile	Bisazza, Italia, Palladio, Mridul
36 Gypsum Board (False Ceiling)	Boral Gypsum, India Gypsum, St. Gobain
37 Hardener	Hardcrete of Snowcem India, Pidilite, CICO.
38 HDPE Pipes	VECTUS, Emco, Polyfins, Pioneer, Plyfab
39 Jet Assembly for EWC/Health Faucet	Parryware, Jaquar, Marc, PRIMA(ISI)
40 Kitchen loft tank	Sintex, Tirupati Structurals Ltd, KMS Plast world P.Ltd. Planet Plastics, Sri Kamakshi Traders, Sreyah Novel InC.
41 Laminate and Veneers	Merino, Greenlam, Kitlam, Duro
42 Locks / Latch	Godrej, Harrision, Dorma, Doorset (ISI)

43	Marine Plywood / BWP Ply	Duro, Century, Greenlam
44	Melamine Polish	Asian Paints, Pidilite, ICI Dulux, Burger
45	Metal False Ceiling	Nitobond, Armstrong, Trac, Durlum, Lafarge, Anutone
46	Mineral Fibre/ GRG Ceiling	Armstrong, Daiken, Anutone, Diamond, Credence
47	M.S. Pipe (Railing)	Jindal, Tata, RINL, Prakash Surya
48	M.S. Tubes	Tata, Apollo, Prakash Surya
49	Multicoat Synthetic Plaster/ Textured Exterior wall paint	Spectrum, Heritage, Ultratech
50	Plywood, Block Board	Greenply, Century, Duro
51	Polycarbonate Sheet	Danpalon (DPI), Bayer, Macrolux
52	Polysulphide / Silicon Sealant	Pidilite, Fosroc, Tuffseal, Chouksey Chemicals, Perma, BASF
53	POP (Plaster of paris)	JK, Laxmi, Sriram Nirman, Sakarni
54	PPR Pipes	SFMC, SAFE, Poiner Industries
55	Precast CC interlocking Tiles	Hindustan, Paver India, KK
56	Precoatd Profile Sheet	Tata, Bhushan or equivalent
57	Pre-laminated Particle Board	Ecoboard, Action-Tesa, Duro, Century Ply, Greenlam, Albihari
58	Pressed steel door frame	M/s Engineers & Fabricator, Raipur, M/s J.K. Enterprises, Jaipur, M/s Jangid Engineering Works, Jaipur, M/s Swastik Super Industries, Mohali, M/s SKS Steel Industries, New Delhi.
59	PTMT Fittings	Prayag, Polytuf, Pearl, Millennium, PRIMA
60	PVC Cistern	Steelbird, Jindal, Seabird, Prayag, Commander
61	PVC Connection Pipe	Supreme, Prince, Finolex
62	PVC Rain Water Pipe & Fitting	Finolax, Kisan, Kasta, Supreme, Astral, Prince
63	Ready Mix Concrete (RMC)	Lafarge, Alchon, ACC, L&T, Grasim, Ultratech, RMC India
64	Ready Mix plaster	Ultratech, Precisecon Chem, Perma, Ferrous Crete, JK, Fosrock,
65	PVC Shutter	Polygreen, Rajshri, Plastogreen, Sintex
66	PVC Water storage Tank (Only ISI)	VECTUS, Water well, Plasto, Polycon, Sintex. (Weight as per ISI)
67	Sluice Valve	Kirloskar, Venus, Kalpana, SANT, KARTAR, Zolto
68	Solid PVC frames and shutters	Polygreen, Rajshri, Plastogreen, Sintex
69	Stainless Steel	Jindal, Salem or equivalent
70	Stainless steel Sink with or without Draining board.	Nirali, Hindware, Frankee, Neelkanth, Jaquar
71	Stainless steel Door/Window fittings & Fixtures	Dorma, Ozone, D-Line, Hettich, Kich, Geze
72	Structural steel section	TATA, SAIL, RINL, Jindal
73	Super plasticizer / admixture	Sika, Fosroc, Chouksey Chemicals, BASF
74	Tensile Fabric	Bluestone, Encon, Structure Flex
75	Tile Adhesive	Ferrous Crete(Ferro-1122), Ardex Endura (Gold Star), PIDILITE (Fevimate XL), WEABR(Saint-Gobin) Sika, Thermoshield, Somany
76	Towel Ring/Towel Rod/Towel Rack	Marc, Jaquar, Kolher, Grohe
77	Tubular steel Window, ventilator, Door frame	M/s Engineers & Fabricator, Raipur, M/s J.K. Enterprises, Jaipur, M/s Swastik Super Industries, Mohali (Punjab) M/s Jangid Engg. Jaipur
78	UPVC Pipes & Fittings	Astral Flowguard, Ashirvad, Prince, Supreme, Finolex, VECTUS
79	Urinal, Washbasin, Orrisa Pattern W.C., Wall mounted European W.C.Seat with Cistern	Hindware, Parryware, Jaquar, Cera, Kolher, Grohe
80	Vitrified Tile	Johnson -Marbonite, Somany, Kajaria, Orient Bell, NITCO, RAK
81	Wall Putty	JK, BIRLA, SARAPUTTY
82	Waste Pipe	Kamal, Viking, Jaquar
83	Water Proofing Compound (Liquid)	Pidilite, Cico, Impermo
84	White Cement	JK White, Birla White, Grasim
85	Auditorium Chairs	Godrej, Wipro, Methodex, Bonton, Penworker, Durion, Spacewood

**LIST OF ACCEPTABLE MAKE FOR ELECTRICAL**

S. No.	Item	Name of Manufacturers
1.	FRLS PVC insulated copper conductor single core cable for wiring. (ISI marked)	Universal/Nicco/Finolex /R.R Kable/ Havells/ Batra Henlay/Grandlay/Bonton
2.	Telephone Cables Co-exail TV cables	Delton/Kent/Finolex /Polycab
3.	CAT-6 Cables for LAN wiring & Internet Cable	D-Link/Legrand /Finolex/Avaya/Lucent/ RR Kable.
4.	MS Conduit i/c accessories (ISI marked)	AKG/BEC/NIC/Steelcraft / JPC Pipes/RMCON
5.	DWC Pipe	REX/Duraline/Gemini pipe
6.	Modular switch, socket/Telephone socket/cable TV socket/Data outlet Socket/Fan Regulator/Metal Boxes/ Occupancy sensor	Legrand-(Arteor)/ M.K.(Blenze)/ Crabtree/Anchor Woods/C&S
7.	GI Pipe	Tata/Jindal (Hissar)/Prakash Surya/Swastik
8.	Paints	ICI/Asian/Berger
9.	Terminal Blocks and connectors	Elmex/Essex/Connect Well.
10.	Compact air insulated rising main.	Legrand/Schneider/L&T/GE
11.	MCB, MCBDB, RCBO's/RCCB's	Schneider Electric/Legrand/L&T Hagger Siemens/ABB/Anchor/C&S
12.	MCCB/Timer	Schneider Electric/ Siemens/Larsen & Toubro/ Legrand/L&T Multiline/ Havells/ABB/C&S
13.	SFU, FSU, HRC Fuses, cable management system/DLP Trunking	Schneider Electric/ Siemens/ Legrand/ L&T/ Havells/C&S
14.	Ammeter/Voltmeter	AE/IMP/Rishabh/HPL (only digital type to be used)
15.	Selector Switch/CT's	Kayee/Siemens/Bhartiya Cutler Hammer/L&T
16.	Change over Switch	HPL/H-Elcon/Standard/L&T/Siemens/ Havells/C&S
17.	Indicating Lamps	Teknic/Siemens/L&T/Vaishnov
18.	Panel Board/Feeder Pillar	Manufacturers having ISO 9001 certification & CPRI approved
19.	Energy Meter/Multifunctional/Intelligent Energy Meter.	HPL/L&T/Hensel/Anchor/Siemens.
20.	Fresh Air Fan/Wall Mounted Fan/Ceiling fan/Exhaust fan. (only energy efficient fans, consuming $\leq 50$ W and CMM $\geq 200$ for 1200 mm & 60 W and CMM $\geq 240$ for 1400 mm shall be used).	Crompton/Orientp/Polar/Khaitan/ Ortem/ Usha
21.	Fluorescent/CFL/LED/Flood/Bulk head Fitting	Phillps/GE/Wipro/Crompton/C&S
22.	Lamps	GE/Osram/Phillips/Wipro/C&S
23.	Wall Brackets	DECON/Phillips/GE/Havells
24.	Angle Holder/Batten Holder (ISI marked)	Kinjal/Emperor/Anchor
25.	Geyser	Racold/Crompton/Jaguar./AO Smith
26.	NRV/Gate Valve	Sant/Leader/BS
27.	XLPE insulated PVC sheathed aluminium cable upto 1.1 KV Gd	Polycab/Finolex//Nicco/KEI/Grandlay/ Gloster/Universal/Bonton/RR Kabel
28.	PVC conduit i/c accessories	Precision/Asian/Diamond/Mod./AKG/JPC Pipes
29.	Paino type Switches/Socket/TV / Telephone Outlet (ISI marked)	Anchor/Rider/Leader

**PROFORMA FOR QUOTING THE RATES**

Name of Work :- Construction of Dietary Services Building at AIIMS Rishikesh .

**NIT No. :- 09/S.E/Civil/2018-19.**

Sr. No.	Name of Component	Estimated Cost	Percentage above or below the estimated cost	% in figures	Total Cost
1.	Work	Rs. 4,00,02,159.00/-			
	<b>Total Percentage</b>				

1. Only one of the options is to be filled. More than one option will be rejected.
2. Rate filled in any form shall be considered only in %age.
3. Rate filled at any other place in the document will not be considered.
4. No condition will be accepted.

Signature of Bidder with full Address :

Date :



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