Government eProcurement System

eProcurement System Government of India

Tender Details

Date : 16-Nov-2024 12:47 PM

Print

Basic Details

Organisation Chain	Indian Institute of Technology Indore||Infrastructure Development Office - IITI		
Tender Reference Number	IITI/IDO/PR/C/Ast/NIT-12/24-25		
Tender ID	2024_IITI_834112_2	**Withdrawal Allowed**	Yes
Tender Type	Open Tender	**Form of contract**	Item Rate
Tender Category	Works	**No. of Covers**	2
General Technical Evaluation Allowed	No	**ItemWise Technical Evaluation Allowed**	No
Payment Mode	Offline	**Is Multi Currency Allowed For BOQ**	No
Is Multi Currency Allowed For Fee	No	**Allow Two Stage Bidding**	No

Payment Instruments

Offline

S.No	Instrument Type
1	R-T-G-S
2	NEFT

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	NIT
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in ₹ * - 0.00]

Tender Fee in ₹	0.00		
Fee Payable To	Nil	**Fee Payable At**	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	13,000	**EMD Exemption Allowed**	No
EMD Fee Type	fixed	**EMD Percentage**	NA
EMD Payable To	Registrar IITI	**EMD Payable At**	IITI

Click to view modification history

Work /Item(s)

Title	Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.				
Work Description	Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	Yes				
Tender Value in ₹	6,47,856	**Product Category**	Civil Works	**Sub category**	NA
Contract Type	Tender	**Bid Validity(Days)**	180	**Period Of Work (Days)**	60
Location	POD 1E IIT Indore	**Pincode**	453552	**Pre Bid Meeting Place**	NA
Pre Bid Meeting Address	NA	**Pre Bid Meeting Date**	NA	**Bid Opening Place**	GF Abhinandan Bhawan
Should Allow NDA Tender	No	**Allow Preferential Bidder**	No		

Critical Dates

Publish Date	16-Nov-2024 03:00 PM	**Bid Opening Date**	25-Nov-2024 04:00 PM
Document Download / Sale Start Date	16-Nov-2024 03:00 PM	**Document Download / Sale End Date**	25-Nov-2024 12:00 PM
Clarification Start Date	16-Nov-2024 03:00 PM	**Clarification End Date**	25-Nov-2024 12:00 PM
Bid Submission Start Date	16-Nov-2024 03:00 PM	**Bid Submission End Date**	25-Nov-2024 12:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	NIT	1141.35

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	Tender Documents	NITTelescope2.pdf	NIT with revised dates	867.75
2	BOQ	BOQ_877749.xls	BOQ	289.50

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	aecivil1@iiti.ac.in	Deepak Chourasia	DEEPAK CHAURASIA
2.	devendra@iiti.ac.in	Devendra Gurjar	DEVENDRA GURJAR
3.	shailendrajat@iiti.ac.in	shailendra Jat	SHAILENDRA KUMAR JAT
4.	chainika@iiti.ac.in	Chainika Malhotra	CHAINIKA MALHOTRA

Tender Properties

Auto Tendering Process allowed	No	**Show Technical bid status**	Yes
Show Finance bid status	Yes	**Stage to disclose Bid Details in Public Domain**	Technical Bid Opening
BoQ Comparative Chart model	Normal	**BoQ Compartive chart decimal places**	2
BoQ Comparative Chart Rank Type	L	**Form Based BoQ**	No

TIA Undertaking

S.No	Undertaking to Order	Tender complying with Order	Reason for non compliance of Order
1	PPP-MII Order 2017	Agree	
2	MSEs Order 2012	Agree	

Tender Inviting Authority

Name	SE cum Project In Charge
Address	IDO Office, GF Abhinandan Bhawan IIT Indore, Indore-453552

Tender Creator Details

Created By	Deepak Chourasia
Designation	Sr. Engineer
Created Date	16-Nov-2024 12:29 PM

भारतीय प्रौद्योगिकी संस्थान इंदौर

Indian Institute of Technology Indore

ई-निविदा-प्रणाली

E-TENDER- MODE

POD 1E IIT इंदौर की छत पर हाई-एंड टेलीस्कोप के स्लाइडिंग छत संचालन के साथ एक कमरे का निर्माण।

Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.

दो बोली आइटम दर निविदा दस्तावेज़ के लिए दस्तावेज़ ऑनलाइन जमा किया जाना है	Document to be submitted online for (Two Bid Item Rate Tender document)

(NIT No.: IITI/IDO/PR/C/Ast/NIT-12/24-25 dated 16.11.2024)

(Last date of submission of online Tenders up to 12:00 PM on 25.11.2024)

Chapter 1 INDEX

Name of work: Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.

This N.I.T. contains 92 (Ninety-Two) pages. Pages marked from 1 to 92 pages. (Excluding GCC and Correction Slip of GCC)

Consultant (C)
IDO, IIT Indore

DEE (C)
IDO, IIT Indore

This NIT No. IITI/IDO/PR/C/Ast/NIT-12/24-25 dated 16.11.2024 amounting to **Rs. 6,47,856/-** (Rupees Six Lakhs Forty-Seven Thousand Eight Hundred Fifty-Six Only) is hereby approved.

SE cum Project in Charge,
IDO, IIT Indore

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

The SE cum Project In charge, IDO, on behalf of IIT Indore invites online item rate bids from approved contractors in CPWD, BSNL, MPPWD, and MES, State Govt. Bodies & Central PSUs working agency of IIT/ IIM/ RRCAT etc. -

S. No.	NIT No.	Name of work & Location	Estimated cost put to tender	Period of completion	EMD Amount	Time and date of pre-bid meeting to be held at O/o IDO, IIT Indore	Start date of bid submission and other documents specified in the Notice	Last date & time of submission of Bid, along with mandatory documents	Time and date of opening of eligibility Bid/documents
1	2	3	4	5	6	7	8	9	10
1	IITI/IDO/PR/C/Ast/NIT-12/24-25	Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.	**Estimated cost:** Rs 6,47,856/- (Rupees Six Lakhs Forty-Seven Thousand Eight Hundred Fifty-Six Only)	**02 Months (60 days)**	**Rs. 13,000/-** **(Rupees Thirteen Thousand Only)** **https://forms.eduqfix.com/indoreiit/add**	**NA**	**16.11.2024** **03:00 PM**	**25.11.2024** **12:00 PM**	**25.11.2024** **at 04:00 PM**

1. The **intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself** eligible and he is in possession of all the documents required.

2. Information and Instructions for bidders posted on website shall form part of bid document.

3. The bid document consisting of plans, specifications, 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 http://iiti.ac.in/tender_estate & https://eprocure.gov.in/eprocure/app free of cost.

4. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed, they can be imparted training on online bidding process as per details available on the website.

5. The intending bidder must have a valid class-III digital signature to submit the bid.

6. On the opening date, the contractor can log in and see the bid opening process. After opening the bids, he will receive the competitor's bid sheets.

7. Contractor can upload documents in the form of JPG format and PDF format.

8. Contractor must ensure to quote rate in the prescribed column(s) meant for quoting rate. ~~If a tenderer does not quote any percentage above / below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tender.~~

9. GST or any other tax payable on construction materials/contract/any activity related with this contract shall be paid by the contractor and Government shall not entertain any claim, whatsoever, in this regard. The contractor shall quote his rates in accordance with Government of India, Ministry of Finance, Department of Revenue, Central Board of Excise & Customs Notification no.10/2017-Central Tax dated 28 June, 2017.

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

Sl. No.	***List of Documents***
*1**	***Certificate GST No.***
*2**	***EMD Rs 13,000/-***
*3**	***Financial information***
	Average Annual turnover 50% of estimated cost of Tender Last Five Year
*4**	***Bank Solvency Certificate VALUE SHOULD BE 40% of Estimated Cost***
*5**	***Details of Eligible Work or Similar Work***
	Successfully completed similar work with in last Seven years
	i) one similar work of value 80% of estimated cost of tender. ***OR***
	ii) Two similar work of value 60% of estimated cost of tender. ***OR***
	iii) Three similar work of value 40% of estimated cost of tender.
6	***Structure and organization of the firm/company***
*7**	***Certificate of EPF and ESIC***
*8**	***Labour Registration/ undertaking***

- The Document should be uploaded in prescribed serial number and no extra number of document/ pages will be uploaded.
- Summary Sheet will be attached with uploaded document.

*** MANDATORY**

- **Registration No. Means: MSME**, CPWD, PWD, Society firm and similar related to the construction/ civil work.

- **Bank Solvency:** Preferably of the Current Financial Year

- **Document for Eligibility of Similar Work:** Only Defined Document (with Seal signed by Client), up to the date of publication of tender is considered.
  Completion Certificate of Work (Sealed and Signed)

- **Financial Information:**
  1. CA Certified Summary sheet year-wise.
  2. Profit/ loss Statement by CA Last 05 Year
  3. ITR returns of the last 05 assessment years

- **Similar Works means:**
  Civil Work

PART-A

CPWD-6 FOR e-Tendering

The Project In charge, IDO, on behalf of IIT Indore, invites online item rate bids from approved registered contractors in CPWD, BSNL, MPPWD, MES & Central PSUs working agency of IIT/IIM/RRCAT, etc. Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.

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

    - The Item rate work is estimated to cost **Rs. 6,47,856/-**
    - This estimate, however, is given merely as a rough guide.

2. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7/8, which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. The time allowed for carrying out the work will be 02 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. The site for the work is available or made available in parts.

    - The general layout of the proposed/ existing buildings/plots/facilities shall be made as per requirement of the same as per approved programmer of completion submitted by the contractor after award of work.

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 on website http://iiti.ac.in/tender_estate & ido.tender@iiti.ac.in free of cost.

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

7. While submitting the revised bid, the contractor can revise the item rate quoted by him any number of times for any/all sub-heads but before last time and date of submission of bid as notified.

8. EMD accepted through online mode only via link provided on page number four (4). A scanned copy of the original EMD /receipt shall also be uploaded to the e-tendering website by the intending bidder up to the specified bid submission date and time.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the bid document shall be scanned and uploaded to the e-Tendering website within the period of bid submission. Further, certified copy of all the scanned and uploaded documents as specified in bid document shall have to be submitted by the lowest bidder only within a week physically in the office of tender authority.

The bid submitted shall be opened at 04:00 PM on 25.11.2024.

8. The bid submitted shall become invalid if:

(a) The bidder is found ineligible.

(b) The bidder does not upload all the documents (including GST registration certificate and acknowledgement of up to date filed return including the copy of receipt for deposition

(c) of original EMD) as stipulated in the bid.

(d) 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.

(e) If a tenderer does not quote any rate on the total amount of the tender or any section / sub head in item rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

(f) The contractor whose bid is accepted will be required to furnish a 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 any scheduled bank/Demand Draft of any scheduled bank/Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1, 00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case, the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses / registrations or proof of applying for obtaining labour license, registration with EPFO, ESIC and BOCW welfare board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid provision by the sub-contractors, if any engaged by the contractor for the said work and programme chart (Time and progress) within the period specified in schedule F.

9. The work of Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore is to be executed at IIT, Simrol Campus, Indore (MP)-452020.

- ❖ Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to ~~the nature of the ground and sub-soil (so far as is practicable),~~ the form and nature of the site, the means of access to the site, the accommodation they may require and, in general, shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid.
- ❖ A bidder shall be deemed to have full knowledge of the site whether he inspects it or not, and no extra charge consequent on any misunderstanding or otherwise shall be allowed.
- ❖ The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents.
- ❖ Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

10. The competent authority on behalf of IIT Indore 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.

11. 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.

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

13. The contractor shall not be permitted to tender for works in the IITI section/ department responsible for award and execution of contracts, in which his near relative is posted in account section or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in the Indian Institute of Technology, Indore or Ministry of Education. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

14. 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.

15. The bid for the works shall remain open for acceptance for a period of **One Hundred Eighty Days (180) days** from the date of opening of financial bids.

- If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

- If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

- In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

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

(a) The Notice Inviting Bid, all the documents including additional conditions, specifications, and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

(b) Standard C.P.W.D. Form 8 or other Standard C.P.W.D. Form as applicable.

17. For Composite Bids

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

17.1.2 The bid document will include following Two components:

Part A: CPWD-6, CPWD-7/8 including schedule A to F for the major component of the work, Standard General Conditions of Contract for CPWD 2023 (Construction Work) as amended/modified up to previous day of submission of bid.

Part B: General/specific conditions, specifications, and schedule of quantities applicable to major component (Civil) of the work.

Part C: Schedule A to F for minor component of the work. (SE/EE in charge of major component shall also be competent authority under clause 2 and clause 5 as mentioned in schedule A to F for major components), General/specific conditions, specifications and schedule of quantities applicable to minor component(s) of the work.

17.1.3 The bidders must associate themselves with agencies of the appropriate class eligible to bid for each of the minor components individually as per NIT Conditions.

17.1.4 The eligible bidders shall quote item/ percentage rate for all subheads/components of work.

17.1.5 After acceptance of the bid by competent authority, the Project in charge of major component of the work shall issue letter of award on behalf of the IIT Indore. After the work is awarded, the main contractor will have to enter into one agreement with Engineer in charge of major component and has also to sign two or more copies of agreement depending upon number of EIC of minor components. One such signed set of agreement shall be handed over to EIC of minor component(s).PIC of major component will operate Part A and Part B of the agreement. EIC of minor component(s) shall operate Part C along with Part A of the agreement.

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

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

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

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

17.1.10 The main contractor has to enter into an agreement /MOU with contractor(s) associated by him for execution of minor component(s). Copy of such agreement/MOU shall be submitted to EIC of each minor component as well as to EIC of major component. In case

of change of associate contractor, the main contractor has to enter into an agreement/MOU with the new contractor associated by him.

17.1.11 Running payment for the major component shall be made by PIC of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor.

17.1.12A. The Item Rate 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 Project-in-charge of after record of completion certificate of all other components.

17.1.12B. The final bill of whole work shall be finalized and paid by the IIT Indore. Project-in-charge of minor component(s) will prepare and pass the final bill for their component of work and pass on the same to the PIC of major component for including in the final bill for composite contract.

INTEGRITY PACT

To,

……..,
……..,
……..

Sub: Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.

NIT No.: IITI/IDO/PR/C/Ast/NIT-12/24-25

Dear Sir,

It is hereby declared that IIT Indore 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 IIT Indore.

Yours faithfully

Project-in-Charge

* To be filled by Project-in- Charge

To,

Project-in-Charge,
……..,
……..

Sub: Submission of Tender for **Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.**

Dear Sir,

I/We acknowledge that IIT Indore 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 IIT Indore. 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, IIT Indore shall have unqualified, absolute and unfettered right to disqualify the tenderer /bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IIT Indore.

INTEGRITY AGREEMENT

This Integrity Agreement is made at..... On this..... Day of..... 20.....

BETWEEN

IIT Indore represented through Project-in-Charge....., (Here in after referred as the "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 ---------- (*) ---------- (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, Construction of standard platform in pantry room with sink and water inlet and outlet facility.

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 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:

* To be filled by Project –in - charge.

Article 1: Commitment of the Principal/Owner

- The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

- 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.

- 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.

- The Principal/Owner shall endeavor to exclude from the Tender process any person whose conduct in the past has been of biased nature.

- 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)

- 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.

- The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles his participation in the Tender process and during the Contract execution:

- 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.

- 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.

- The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/ PC Act. Further the Bidder(s)/Contract(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.

- 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 participates 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.

- The Bidder(s)/Contractor(s) will, when presenting his bid, disclose 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.

- The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

- 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.

- 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.

- 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.

- Forfeiture of 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 Performance Guarantee and Security Deposit of the Bidder/Contractor.

- 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 IPC 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

- 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.

- If the Bidder makes an incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

- 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

- 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 Subcontractors/sub-vendors.

- The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

- 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 15 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, IIT Indore.

Article 7- Other Provisions

- This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.

- Changes and supplements need to be made in writing. Side agreements have not been made.

- 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.

- 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 intensions.

- 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 thereof 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/Contact 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:

INDIAN INSTITUTE OF TECHNOLOGY INDORE

ITEM RATE TENDER & CONTRACT FOR WORKS

1.	Tender for work of	Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.

(i) To be uploaded by 3.00 PM (IST) on 16.11.2024 upload at **http://iiti.ac.in/tender IDO & https://eprocure.gov.in/eprocure/app**

(ii) To be opened at 04:00 PM (IST) on 25.11.2024 in the office of Infrastructure Development, IIT Indore.

TENDER

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

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

I/We agree to keep the tender open for **180 (One Hundred Eighty) days** from the due date of its not to make any modification in its terms and conditions.

l/We have deposited EMD for the prescribed amount via online link provided as per the bid document.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of insurance Surety Bonds/ Account Payee Demand Draft/ Fixed Deposit Receipt/ Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

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

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

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

Dated Signature of Contractor

Witness:

Name:
Postal Address:
Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the IIT Indore for a sum of ` ……*……..……..(Rupees……*…… …… ……).

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

(a) *

(b) *

(c) *

For & on behalf of IIT Indore

Signature ……*…….

Dated: *

Designation ……*…….

*To be filled in by PIC

PROFORMA OF SCHEDULES

(Separate Performa for Civil, Works in case of Item Rate Tenders)
(Operative Schedules to be supplied separately to each intending tenderer)

SCHEDULE 'A'

Schedule of quantities (Civil component)	(Civil Work: - Part C of this tender document)

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any.	As attached in tender form

SCHEDULE 'E'

Reference to General Conditions of contract –	GCC for CPWD 2023 CONSTRUCTION WORKS as amended/modified up to the previous day of submission of tender.

Name of Work: Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore

Estimated cost for work:	**Rs. 6,47,856/- (Civil Work)**
Earnest money	**Rs. 13,000/-**
Performance Bank Guarantee	5% of the tendered value of the work
Security Deposit	2.5% of the tendered value of the work

SCHEDULE 'F' GENERAL RULES & DIRECTIONS

Officer inviting tender		Project-in-charge, IIT Indore
Maximum percentage of quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2.& 12.3		*See page 30*
Definitions		
2(v)	Engineer-in-Charge	**Deputy Executive Engineer, IDO-IITI, Indore** or his successor
2(vii)	Accepting Authority	SE cum PIC, IDO-IITI, Indore- or his successor
2(x)	Percentage on cost of materials and labour to cover all overheads and profits	15% (Fifteen Percent)
2(xi)	Standard Schedule of Rates	Delhi Schedule of rate 2021 (Civil) Volume-I & II with correction slips upto the previous day of submission of bid ~~& Market Rate for non DSR items.~~
2(xii)	Department	Infrastructure Development Office , IIT Indore
	Standard CPWD contract Form GCC 2019, CPWD Form 7/ 8 as modified & corrected upto date	General conditions of contract for construction works 2023 & CPWD form-8 as amended upto the previous day of submission of bid.

Clause 1(i)	Time allowed for submission of Performance and applicable labour licenses/registration. Registration with EPFO, ESIC & BOCW welfare Board including Provident Fund Code No., if applicable or proof of applying thereof from the date of issue of letter of acceptance	07 Days
Clause 1(ii)	Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period as provided in clause 1 (i) above-5 Days	03 Days
Clause 2	Authority for fixing Compensation under Clause 2	**Director, IIT Indore**
Clause 2 A	Whether Clause 2A shall be applicable	NA
Clause 5	Number of days from the date of issue of letter of acceptance for reckoning date of start	10 (Ten) Days

Time allowed for execution of work		02 Months (60 days)
Authority to decide	(i) Extension of time	Director IIT Indore or his successor
	(ii)Rescheduling of milestone	Director IIT Indore or his successor
	(iii) Shifting of date of start in case of delay in handing over of site	Superintending Engineer, IDO-IITI, Indore or his successor

Table of Milestone(s)

Milestone No.	Description of Milestone	Time allowed from date of start (Days)	Amount to be withheld in case of non-achievement of milestone
1.	RCC and Brickwork	**15**	3%
2.	Structural Steelwork	**30**	2%
3.	Plaster and Finishing work	**45**	2%
4.	Finishing and handing over	**60**	3%

Note: If the Agency fails to achieve milestones No 1 to 4, then the respective amount of the milestone shall be forfeited and not to be payable.

Clause 6	Whether clause 6 shall be applicable	Yes- CMB
Clause 7	Gross work to be done together with net payment / Adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment (CIVIL WORK)	Rs.10.00 lakhs
Clause 7A	Whether clause 7A shall be applicable	Yes
Clause 8A	Authority to decide compensation on account if contractor fails to submit completion plans	SE cum PIC, IDO-IITI, Indore- or his successor
Clause 10A	List of testing equipment to be provided by the Contractor at site lab.	All necessary equipment for conducting all necessary tests shall be provided at the site as per direction of Project/ Engineer In charge)
Clause 10 B	Whether clause 10-B (i) & (ii) shall be applicable	NA
	Clause 10-B (iii) shall be applicable	NA
Clause 10 C	Component of labour expressed as percentage of value of work	NA
Note: Payment under this clause is admissible when Contractor submits proof of having paid wages due to every worker through bank or ECS or online transfer to His bank account.		
Clause 10 CC	NA	

Clause 11	Specification to be followed for execution of work	
For Civil items of work	For Civil: CPWD specification 2019, Volume-I & II with correction slips upto the previous day of submission of bid, suppliers / manufacturer specification for non DSR items.	
Clause 12	Type of work	Original work (Civil)
Clause 12.2 & 12.3	Deviation limit beyond which clause 12.2 &12.3 shall apply for building work	100%
Clause 12.4	Deviation limit beyond which clause 12.2 & 12.3 shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items)	100%
	Deviation limit for items mentioned in earth work subhead of DSR and related Items	100%
Clause 16	Competent Authority for Deciding reduced rates for Civil items of work	SE cum PIC, IDO-IITI or his successor
Clause 18	List of mandatory machinery, tools & Plants to be deployed by the contractor at site	All machinery, t&p as per requirement of work and site to the satisfaction of Engineer-in-charge.
Clause 19 (C, D, G &K)	Authority to decide penalty for each default	SE cum Project in Charge, IIT Indore
Clause 25	**Designation**	
	Conciliator	DOID, IIT Indore
	Arbitrator Appointing Authority	Director-IITI, Indore or his successor
	Place of Arbitration	Indore

Clause 32	**Requirement of Technical Representative(s) and Recovery Rate**				
Cost of work (Rupees in crores)	Requirement of Technical Staff		Minimum experience (years)	Designation of Technical Staff	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 32 (figures in words)
	Qualification	**Number**			
More than 1.5 Crore to 5 Cr.	Graduate Engineer or Diploma in Engineering	1	2 or 5 (respectively)	Project Manager/ Site Engineer	Rs. 25,000/- (Twenty-five thousand rupees only) per month per person

***Cost of work in the table above means the agreement amount of the work.*

- Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38		
Civil		
(i)	Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2023 printed by CPWD	D.S.R.2023 for civil works with up-to-date correction slips
(ii)	Variations permissible on theoretical quantities ~~a. Cement for works with estimated cost put to tender not more than 25 lakhs.~~ For works with estimated cost put to Tender is more than 25 lakhs b. Bitumen all works c. Steel reinforcement and structural steel Sections for diameter, section and category. d. All other materials and Electrical Items	~~a. 3% plus/minus~~ ——2% plus/minus b. 2.5% plus only & nil on minus side. c. 2% plus/minus d. Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of Item	Unit	Rates in figures and words at which recovery shall be made from the Contractor	
			Excess beyond permissible variation.	Less use beyond permissible variation
1.	Cement PPC	MT	Nil	Substandard work shall Not be applicable.
2.	Reinforcement Bars TMT-fe 500D (i)Primary Manufacturer	MT	Nil	Substandard work shall Not be applicable.
3.	Structure Steel	MT	Nil	Substandard work shall Not be applicable.

GENERAL REQUIRMENTS FOR THE TENDER

1. The tenderer is advised to read and examine the tender documents for the work and the set of drawings available with Project -in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.

2. A separate schedule of quantity is included in this tender for civil and electrical items of work. If the tenderer wants to offer any unconditional rebates on their rates, the same should also be offered in the respective components of the civil and electrical schedule separately. The contractor shall quote the item rates in figures and words accurately so that there is no discrepancy in rates written in figures and words.

3. Time allowed for the execution of work is 02 Months.

4. The contractor(s) shall submit a detailed program of execution in accordance with the master program/ milestone within ten days from the date of issue of award letter.

5. Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant Para's.

6. The contractor (s) shall make his own arrangements for the electricity and water required for the execution of work.

7. Cement shall be arranged by the contractor himself.

8. Steel Reinforcement shall be arranged by the contractor himself.

9. The contractor shall submit the running bills in the shape of the computerized MB in pages of A-4 size as per the standard format of department and shall act as per modified clause 6 (i) of GCC 2023.

10. Contractor must provide reinforcement cover blocks made of approved proprietary prepacked free flowing mortars (Concentra as manufactured by M/s Fosroc Chemical India Ltd. or approved equivalent) of high early strength.

11. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time.

12. The contractor shall comply with the provisions of Construction and Demolition Waste Management Rules, 2016 as per Ministry of Environment and Forest notification dated 29/03/2016 issued in exercise of powers conferred by Environment (Protection) Act 1986 (Available on web address www.moef.gov.in). The contractor shall also follow all rules and regulations regarding disposal of C&D waste as per approval of local bodies.

PART-B

SPECIAL CONDITIONS FOR CEMENT & STEEL

1. The contractor shall, at his own expense procure and provide all materials including cement and steel required for the work.

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

3. All materials brought by the contractor for use in the work shall be got checked from the Engineer-In-Charge or his authorized representative of the work on receipt of the same at site before use.

4. The contractor shall also employ necessary watch and ward establishment for the safe custody of materials at his own cost. The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock and key system.

5. Contractor has to produce manufacturers test certificate for each lot of cement & steel procured at site.

6. CONDITIONS FOR CEMENT:-

6.1 The contractor shall procure 43 grade ordinary Portland Cement conforming to IS 8112/ Portland Pozzolana cement conforming to IS 1489 (Part-I), as required in the work, from reputed manufacturers of cement such as ACC, UltraTech, Birla,Vikram, Shree Cement, Ambuja, Jaypee Cement & J.K. Cement or from any other reputed cement Manufacturer having a production capacity not less than one million tones per annum as approved by SE cum Project in Charge. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially. The supply of cement shall be 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 tested in accordance with provisions of relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected, and it shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.

6.2 The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer- in- charge. ~~The cement godown of the capacity to store a minimum of 2000 bags of cement or as directed by Engineer-in-charge and shall be constructed by the contractor at site of work for which no extra payment shall be made.~~

6.3 ~~Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-Charge or his authorized representative and the keys of the other lock shall remain with the contractor.~~ The contractor shall be responsible for the watch and ward and safety of the cement godown/ store. The contractor shall facilitate the inspection of the cement godown/ store by the Engineer-in-Charge at any time.

6.4 The cement shall be got tested by the Engineer-in-charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading , documentation, including testing charges shall be borne by the contractor.

6.5 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10A of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to made.

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

6.7 The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.

6.8 ~~The cement in bags shall be stacked by the contractor in two godowns one for fresh arrival to be tested for quality and another already tested in use having weather proof roof and walls and on a proper floor consisting of two layers of dry bricks laid on well consolidated earth at a level at least 30 cm above the ground level. These stacks shall be in rows of two bags deep and 10 bags high with a minimum of 60 cm. clear space all round. The bags should be placed horizontally continuous in each line as per sketch given in **CPWD Specification – 2019**. The sketch is only for guidance. Actual size / shape of go downs shall be as per site requirement. The decision of Engineer-in-Charge regarding the capacity needed will be final and nothing extra shall be paid on this account.~~

6.9 Cement register for the cement shall be maintained at site. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same shall be regularly reviewed by Engineer-in-charge or his representative.

PROFORMA FOR THE CEMENT REGISTER

PARTICULARS OF RECEIPT			PARTICULARS OF ISSUE			REMARK							
Date of receipt	Quantity received	Progressive Total	Date of issued	quantity issued	Item of work for which issued	Quantity returned at the end of the day	Total issued	Daily Balance in hand	Contractor initials	J.E's initials	Asstt. Engg initials	A.E. E.E initials	Period ical Check
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**

7. Special conditions for steel (TMT and CRS)

A.–For TMT bars

7.1 The contractor shall procure TMT/CRS bars of Fe500D or more grade from primary producers such as SAIL, Tata Steel Ltd., RINL, Jindal Steel & Power Ltd or any other producer as approved by CPWD who are using iron ore as the basic raw material / input and having crude steel capacity of 2.0 million tones per annum and above.

In case of non-availability of steel from primary producers the NIT approving authority may permit use of TMT reinforcement bars procured from secondary producers having Integrated Steel Plants (ISPs) using iron ore as the basic raw material for production of crude steel which is further rolled into finished shapes in-house having crude steel capacity of 0.5 Million tonne per annum and more.

In case of non-availability of steel from primary producers as well as ISPs then the NIT approving authority may also permit use of TMT reinforcement bars procured from secondary producers in such cases following conditions are applicable.

(a) The grade of the steel such as CRSFe500D or more grade to be procured is to be specified as per BIS 1786-2008 or as mentioned in Schedule of Quantity.

(b) The secondary producers must have valid BIS licence to produce HSD bars conforming to IS 1786 : 2008. In addition to BIS licence, the secondary producer must have valid licence from either of the firms Tempcore, Thermex, Evcon Turbo & Turbo Quench to produce TMT Bars.

(c) The CRS bars procured from primary producers & ISP shall conform to manufacture's specifications.

(d) The TMT bars procured from secondary producers shall conform to the specifications as laid by Tempcore, Thermex, Evcon Turbo & Turbo Quench as the case may be.

(e) CRS bars procured either from primary producers ISP or secondary producers, the specifications shall meet the provisions of IS 1786: 2008 pertaining to Fe 500D gradeor more of steel as specified in the tender.

7.2 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 as defined under para (1)(d) & (1)(e) above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in-Charge to do so.

B. For Corrosion resistant Steel (CRS)

The contractor shall procure **CRS bars of Fe 550D or more grade** from primary producers such as SAIL, Tata Steel Ltd., JSW, RINL, Jindal Steel & Power Ltd or any other producer as approved by CPWD who are using iron ore as the basic raw material / input and having crude steel capacity of 2.0 million tones per annum and above.

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

(b) The contract shall obtain manufacturer's certificate stating the process of manufacturer, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-Charge. Each test certificate shall indicate the number of the cast to which it applies corresponding to the number or identification mark to be found on the material.

(c) The Engineer-in-Charge shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS : 1786 from approved laboratory.

(d) Only corrosion resistant steel rebars shall be used.

(e) corrosion resistant steel (CRS) is in fact low alloy steel with improved corrosion resistance.

(f) The mechanical properties of such low alloy steel reinforcement bar shall be conforming to mechanical properties of equivalent grade to normal TMT reinforcement bar as per IS: 1786. However, its chemical properties shall be complying with guidelines pertaining to low alloy steel in IS: 1786.

7.3 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as decided by the Engineer-in-charge.

7.4 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.

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

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

7.6 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.

7.7 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10A of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment need to be made.

7.8 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.

7.9 In case the contractor bring surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in- Charge

7.10 The mild steel and medium tensile steel bars to be used shall conform to latest version of IS: 432 and cold twisted bars and TMT bars shall conform to the latest version of IS: 1786.

7.11 (i) Reinforcement including authorized spacer bars and lappages shall be measured in length of different diameters as actually (not more than as specified in the

drawings) used in the work nearest to a centimetre. Wastage and un-authorized overlaps shall not be measured.

ii) The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications (Vol-I) 2019 for Cement Mortar, Cement Concrete and RCC Works will be considered for conversion of length of various sizes of M.S. Bars, T.M.T. and CRS Bars into Standard Weight.

iii) Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight.

iv) a) If the Derived Weight as in sub-para (iii) above is lesser than the Standard Weight as in Sub-para (ii) above then the Derived Actual Weight shall be taken for payment. (If found with in the permissible limit of variation as per CPWD specifications 2019 Vol. 1&2 or relevant IS Code).

If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight as worked out in sub-para (ii) above shall be taken for payment. In such case nothing extra shall be paid for the difference between the Derived Actual Weight and the standard Weight. The standard weight of TMT bars in CPWD specification will be consider for CRS bars standard weight.

CONDITION FOR RMC AND DESIGN MIX CONCRETE

THIS CHAPTER IS PROVIDED TO ENSURE BETTER QUALITY CONTROL AND DOCUMENTATION. THIS CHAPTER SHALL BE READ ALONG WITH RELEVENT CPWD SPECIFICATION. PROVISIONS OF THIS CHAPTER ARE COMPLEMENTARY TO RELEVANT CPWD SPECIFICATION(S).

1. C.C. Work (Design mix concrete):-The CC 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 is CC, CPWD Specifications shall be followed. The Design Mix Concrete will be designated based on the principles given in IS: 456: 2000. The Contractor shall submit design mixes for each class 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.

The first concrete mix design / laboratory tests, with admixture (if to be used by contractor at his own cost) and without admixture will be carried out by the contractor through approved laboratory mentioned in this document. All expenditure on this account shall be borne by the contractor.

The various ingredients for mix design / laboratory tests shall be sent to the lab / test houses through the Engineer-in-charge and the samples of such aggregates sent shall be preserved at site by the contractor in supervision of department.

The contractor shall submit the report on design mix from any of approved laboratories for approval of Engineer–in–Charge within 30 days from the date of issue of letter of acceptance of the tender. No concreting shall be done until the design mix is approved. 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.

In case of change of source or characteristic properties of the ingredient(s) used in the concrete mix during the work, a revised laboratory mix design report conducted at approved laboratory or laboratory established at site shall be submitted by the contractor as per the direction of the Engineer-in-charge at no extra cost.

1.1 Approval of design mix:-It shall be in accordance with CPWD specification 2019 Vol. 1 to II shall be followed with upto date correction clips.

The Design mix/ job mix shall be got designed by the contractor only from the Government institute as approved by Engineer in charge at his own cost.

All other operations in concreting work like Mixing, Slump transportation, laying / placing of concrete, compaction, curing sampling, etc. and tests not mentioned in this particular specification for Design Mix of Concrete shall be as per CPWD specifications 2019 and other relevant codes.

1.2 Production of Concrete

All concrete shall be produced at site through fully computerised weigh-batching plant of suitable capacity conforming to IS:4925 revised/ modified upto last day of submission of bid. with the arrangements for automatic dispensing of admixture and having facility of giving print out indicating weight / details of all ingredient of concrete in each lot/ batch and

variations from the approved design mix if any. **Minimum 1 fully automatic batching and mixing plant having capacity 10 to 15 cum/ hour may be installed at site by the contractor at his own cost**. Site shall be provided by Engineer-in-charge within 20 km road distance from work site. The batching and mixing plants shall be dedicated plant for this project. Contractor shall make his own arrangements for the necessary infrastructure for installation of batching plant and other machineries. Contractor shall make arrangement of water, electricity etc. To make the plant functional and for proper production of concrete. Plant calibration shall be got done through appropriate agency, **for establishing batch mix plant contractor shall obtain requisite NOC's, permission and approval from concerned local authorities at his own cost.**

Automatic batcher shall be charged by devices which when actuated by a single starter switch will automatically start the weighing operation of each material and stop automatically when the designated weight of each material is fed in the mixer. The batching plant shall have automatic arrangement for dispensing the admixture and shall be capable of discharging water in more than one stage. A batching plant essentially shall consist of the following components:

- Separate storage bins for different sizes of aggregates, sand, silo for cement and flyash, water storage tank, admixture etc.
- Batching equipment
- Mixers
- Control Panels
- Mechanical material feeding and elevating arrangements
- Other arrangement required as per standard practice

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

The batching equipment shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e. water, cement, admixture, sand, individual size of coarse aggregates etc.

The batching and mixing plant shall have the provision of adjusting the plus / minus quantity of various ingredients in the next batch so that there is no variation in quantity of ingredients from design mix in a lot consisting of 5 to 6 batches.

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

Contractor shall submit calibration certificate of batching plant issued by appropriate authority/agency as and when asked by Engineer in charge.

1.3 Ready Mix Concrete (RMC) from RMC producer

1.3.1 However, if due to any reason, contractor wishes to supplement the concrete from Ready Mix Concrete (RMC) supplier, he is permitted to procure the same from the source approved by the Engineer-in-charge at no extra cost. Source should be within 45 km preferably or more road distance from work site in IIT Indore. In such a situation, all technical requirements such as quality of water, cement type and minimum cement quantity, w/c ratio, slump, admixture etc shall be conveyed to RMC supplier by the contractor and contractor shall be wholly responsible for ensuring the property of concrete as required at site/The contractor may take some time to install his own batching plants at site and till the batching plants are installed, the contractor is permitted to procure concrete from approved Ready Mix Concrete (RMC) supplier for a period 1 month from date of start of work or the period as agreed by Engineer-in-Charge. Similarly, when the work is nearing completion and daily requirement of concrete is very less, **if agreed by the Engineer-in-Charge, the contractor may be permitted to procure the concrete from approved Ready Mix Concrete (RMC) supplier for work at no extra cost**.

1.3.2 The contractor shall, within a 15 days of award of the work, submit list of at least three RMC producers of approved suppliers with details of such plants including details and number of transit mixers & 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 producer) to the Engineer-in-charge. Engineer-in-charge shall give approval in writing (subject to drawl of MOU) failing which the contractor shall give list of other RMC producers of repute along with required details for approval of Engineer in charge. The contractor shall draw the MOU with approved RMC producer and submit to Engineer-in-charge within a week of such approval. The contractor will not be allowed to use ready mixed-concrete without completion of above stated formalities.

1.3.3 For all purposes the contractor shall carry out fully the responsibilities of the "placement contractor" and the "manufacturer of concrete".

1.3.4 The Engineer-in-charge will reserve right to inspect at any stage and reject the concrete if he is not satisfied about quality of product at the user's end.

1.3.5 The Engineer-in-charge reserves the right to exercise control over the: -

I. Ingredients, water and admixtures purchased, stored and to be used in the concrete including conducting of tests for checking quality of materials, recording of test results and declaring the materials fit or unfit for use in production of mix.

II. Calibration check of the RMC plant.
III. Weight and quantity check on the ingredients, water and admixture 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, if required.
VI. For exercising such control, the Engineer-in-charge may periodically depute his authorized representative at the RMC plant. It shall be responsibility of the contractor to ensure that all necessary equipment, manpower & facilities are made available to E-in-C and/or his authorized representative at RMC plant.

The contractor should therefore draw MOU/agreement with RMC producer very carefully keeping in view all terms and conditions/specifications forming part of this tender document.

1.3.6 Quality control of Ready-mixed concrete

It shall be the responsibility of the contractor to ensure that RMC producer provides all necessary testing equipment's and takes all necessary measures to ensure Quality Control of ready mixed concrete. In general the required measures shall be:-

(I) Control of purchased material quality

RMC producer shall ensure that all the materials purchased and used in the production of concrete conform to the stipulation of the relevant agreed specifications/ standard and the requirements of the concrete mix design and quality control procedures. This shall be accomplished by visual checks, sampling and testing, certification from material supplier and information/data from material(s) supplier(s). Necessary equipment for the testing of all material(s) shall be provided and maintained in calibrated condition at the plant by the RMC producer.

(II) Control of material storage

Adequate and effective storage arrangement shall be provided by RMC producer at RMC plant for reliable transfer and feed systems, drainage of aggregates, prevention of freezing or excessive solar heating of aggregate, prevention of contamination etc.

(III) Record of mix design and mix design modification

RMC producer shall ensure that record of mix design and mix design modification is readily available in his computer at RMC plant for inspection of Engineer-in-charge or his authorized representative at any time. Any modification in mix design shall be done only after the approval of Engineer-in-charge.

(IV) Transfer and weighing equipment

RMC producer shall ensure that a documented calibration procedure is in place. Proper calibration records shall be made available indicating date of next calibration due & corrective action taken. RMC producer shall ensure additional calibration checks whenever required by E-in-C in writing to contractor. RMC producer shall also maintain a daily production record including details of customers to whom RMC was supplied including details of mixes supplied. Shall also be maintained of what materials were used for each day's production including water and admixtures.

(V) Maintenance of Plant, Truck Mixers and Pumps;-

Plant, Truck Mixer and Pumps should be well maintained so as to not hamper any operation of production transportation and placement of concrete.

(VI) Production of concrete at RMC producing plant

i) Weighing (correct reading of batch data and accurate weighing) for each load, written, printed or computerised graphical records shall be made of the weights of the materials batched, the estimated slumps, the total amount of water added to the load, the delivery tickets number for that load and the time of loading the concrete into the truck shall be produced by the contractor, failing which no payment shall be released.

ii) Visual observation of concrete during production and delivery of during sampling and testing of fresh concrete (assessment of uniformity, cohesion, workability, adjustment to water content):-the workability of the concrete shall be controlled on a continuous basis during production. The batch mix found unfit shall not be loaded into the truck for transportation.
Necessary corrective action shall be taken in the production of mix as required for further batches.

iii) Adequate testing equipment at the plant including equipment for measuring surface moisture content of aggregates shall be provided by the RMC producer.

iv) Making corresponding adjustments at the plant automatically or manually to batched quantities to allow for observed, measured or reported changes in materials or concrete qualities.

v) Sampling of concrete, testing, monitoring of results.

vi) Diagnosis and correction of faults identified from observations/complaints

vii) Control of designed and the prescribed mixes: a quality control system shall be operated to control the strength of designed mixes to the required levels. The system shall include continuous analysis of results from cube tests.

1.4 TRANSPORTATION, PLACING AND COMPACTION OF CONCRETE

Mixed concrete from the RMC / Batching plant shall be transported to the point of placement by transit mixers and placed in position through concrete pumps and/or steel closed bottom buckets capable of carrying minimum 0.6 cum concrete. The

operational speeds and general construction of transit mixer and other requirement shall conform to IS:5892 revised upto previous day of submission of bid.

In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents at all stages. Special precaution shall be taken that surrounding temperature during concreting shall not exceed 30 degree centigrade Except where otherwise agreed to by the Engineer-in-Charge, concrete shall be deposited in horizontal layers to a compacted depth of not more than 450 mm. Unless agreed to by the Engineer-in-Charge, concrete shall not be dropped into place from a height exceeding 1.5m. In order to avoid such situations chutes, tremie pipe or closed bottom buckets shall be used. These shall be kept clean and used in such a way as to avoid segregation. Slope of the chute shall be so adjusted that concrete flows without the use of excessive quantity of water. The delivery end of chute shall be as close as possible to the point of deposit. the chute shall be thoroughly flushed with water before and after each working period and the water used for this purpose shall be discharged outside the formwork. The concrete shall be compacted by using immersion type vibrators. When the concrete is being continuously deposited to a uniform depth along a member, vibrator shall not be operated within one meter of free end of the advancing concrete. Every effort shall be made to keep the surface of the previously placed layer of concrete alive so that the succeeding layer can be amalgamated with it by the vibration process. In case the concrete in underlying layer has hardened to such an extent that it cannot be penetrated by the vibrator but is still fresh (that is, just after initial set), un-imposed bond shall be achieved between the top and underlying layer by first scarifying the lower layer before the new concrete is placed by systematically and thoroughly vibrating the new concrete. The points of insertion of vibrator in the concrete shall be so spaced that the range of action overlap to some extent and the freshly filled concrete is sufficiently consolidated at all locations. The spacing between the dipping positions of vibrator shall be maintained uniformly throughout the surface of concrete so that concrete is uniformly vibrated. The vibrating head shall be regularly and uniformly inserted in the concrete so that it penetrates of its own accord and shall be withdrawn slowly whilst running so as to allow redistribution of concrete in its way and allow the concrete to flow back into the hole behind the vibrator. The vibrator head shall be kept in one position till the concrete within its influence is completely consolidated. Vibration shall be continued until the coarse aggregate particle have blended into the surface but have not disappeared. The contractor shall keep at least one additional vibrator in serviceable condition to be used in the event of breakdowns and maintenance problems.

The vibrator head shall not be brought more than 50/100/200 mm as applicable near to the formwork as this may cause formation of water stagnations. The formwork shall be strong and great care shall be exercised in its assembly. It shall be designed to take up increased pressure of concrete and pressure variations caused in the neighbourhood of vibrating head, which may result in excessive local stress on the formwork. The joints of the formwork shall be made and maintained tight and close enough to prevent the squeezing out slurry or sucking in of air during vibration. The formwork to receive concrete shall be cleaned and made free from standing water, dust, etc. The contractor shall keep provision for screed and shutter vibrators at site.

No concrete shall be placed in any part of the structure until the approval of Engineer-in-Charge has been obtained. If concreting is not started within 24 hours of the approval being given, it shall have to be obtained again from the Engineer-in-Charge. Concreting shall be done continuously over the area between construction joints. Fresh concrete shall not be placed against concrete which has been in position for more than 30 minutes unless a proper construction joint is formed. When concreting has to be resumed on a surface which has hardened, it shall be roughened, swept, clean, thoroughly wetted and covered with a 13 mm thick layer of mortar composed of cement and sand in the same ratio as in the concrete mix itself. The 13 mm layer of mortar shall be freshly mixed and placed immediately before placing of new concrete.

Where concrete is not fully hardened, all latency shall be removed by scrubbing the wet surface with wire or bristle brushes. Care shall be taken to avoid dislodgement of particles of coarse aggregate. The surface shall then be thoroughly wetted, all free water removed and then coated with neat cement grout. Particular attention shall be given to corners and close spots.

1.4.1 SURFACE FINISH

The exposed surface of concrete of all grades shall be shutter finished except where form liner is used. Concrete with surface defects larger than 1/6th of the cover shall be rejected. Any special surface finish such as form liner finish of outer surface of any RCC element, shall be as per approved drawing or as directed by the Engineer-in-Charge. The quoted rates shall deemed to have included such elements and nothing extra shall be payable on this account.

All members above ground or formation level shall have shutter finished surfaces. No tie bolt shall be permitted in piers. Cast-in-situ superstructure shall be casted in single pour between the expansion joints. Utmost care shall be taken by the contractor in erection of formwork for components cast in stages if any. Location of construction joints in between such stages shall be pre-decided and all such joints shall be treated in a manner approved by the Engineer-in-charge so as to match with the surrounding concrete without leaving any visual aberration or bad patches and/or

bands. The contractor shall be deemed to have included the cost of such operation in his quoted rates and no claim whatsoever shall be entertained at a later date.

The form finished Concrete surfaces shall be free from honeycomb, blemishes, holes, surface defects, surface undulation etc. In no case such defects shall exceed 200 mm in any direction for individual spots or the continued area of such defects shall not exceed 0.2% of the entire area of related surface. Any variation beyond this limit shall be considered as a substandard work and shall be liable for rejection. The Engineer-in-Charge shall have the option to accept the so formed concrete at a reduced rate for defects exceeding this limit provided it is structurally adequate and due matching of defective patches is done by the contractor to the entire satisfaction of the Engineer-in-Charge.

Special care shall be taken to ensure that no stains are left on the formed concrete either from formwork or exposed reinforcement bars. Such stains shall be removed by the contractor at no extra cost so as to match with adjoining concrete surfaces to the satisfaction of the Engineer-in-Charge.

1.4.2 CURING OF CONCRETE

Curing of concrete shall be complete and continuous using water that is free of harmful amounts of deleterious materials that may attack, stain or discolour the concrete.

Immediately after compaction and completion of any surface finishes, the concrete shall be protected from evaporation of moisture by means of polyethylene sheets, wet hessian or other material kept soaked by spraying. As soon as the concrete has attained a degree of hardening sufficient to withstand surface damage, moist curing shall be implemented and maintained for a period of at least 14 days after casting.

Method of curing and their duration shall be such that the concrete will have satisfactory durability and strength and members will suffer a minimum distortion, be free from excessive efflorescence and will not cause undue cracking in the works by its shrinkage.

The top surface of the slabs and other horizontal surfaces shall be cured by impounding water in cement mortar bunds. Steeply sloping and vertical formed surfaces shall be kept completely and continuously moist prior to and during the striking of formwork by applying water to the top surfaces and allowing it to pass down between the formwork and the concrete. After removal of form, moist curing to be done by wrapping hessian cloth, etc. and keeping it moist by suitable means.

Approved non-wax base curing compounds can be applied on vertical and inclined surfaces, after 7 days of moist curing, where permitted by the Engineer-in-Charge at no extra cost. However it is required to be proved that using curing compound the concrete shall not have less strength than concrete cured by water curing. It shall not

leave any discolouration on the structural concrete. Such approved compounds shall be applied to all exposed surfaces of the concrete.

Steam curing with approved methodology can be adopted if required, for precast segments. No additional payment will be made for adopting steam curing.

1.4.3 CONCRETING OF NARROW MEMBERS

Wherever the concreting of narrow member as in case of piers/ column/ diaphragm wall etc. (as adjudged by Engineer-in-Charge) is required to be carried out within shutters of considerable depth, temporary openings in the sides of the shutters shall, if so desired by the Engineer-in-charge, be provided to facilitate the pouring and consolidating of concrete. Before any concreting is commenced, shutters and centering shall be carefully examined and the space to be occupied by the concrete be thoroughly cleaned out. The concrete in such members shall be compacted with suitable shutter vibrators as appropriate.

1.4.4 PROTECTION OF CONCRETE BELOW GROUND LEVEL

Concrete placed below the ground shall be protected from falling earth during and after placing. Concrete placed in ground containing deleterious substances shall be kept free from contact with such ground and with water draining there from during placing and for a period of seven days or as otherwise instructed thereafter. Appropriate measures shall be taken to protect immature concrete from damage by debris, excessive loading, abrasion, vibrations, deleterious ground water, mixing with earth or other materials, and other influences that may impair the strength and durability of the concrete.

1.4.5 CONSTRUCTION JOINTS

Before the concrete is fully hardened, all latency shall be removed by scrubbing the wet surface with wire or bristle brushes. Care shall be taken to avoid dislodgement of particles of coarse aggregate. The surface shall then be thoroughly wetted, all free water removed and then coated with neat cement grout. Particular attention shall be given to corners and close spots.

Construction joints in all concrete work shall be made as directed by the Engineer-in-Charge. Where vertical joints are required, these shall be shuttered as directed and not allowed to take the natural slope of the concrete. Before fresh concrete is placed against a vertical joint, the old concrete shall be chipped, cleaned and moistened.

When a horizontal construction joint is formed, provision shall be made for interlocking with the succeeding layer by the embedment of saturated wooden blocks or wooden strips beveled on four sides to facilitate their removal. Prior to the next pour the wooden pieces shall be loosened and removed in such a manner as to avoid injury to the concrete. After about 8 to 12 hours of concreting, contact surface shall be hacked to expose the aggregate surface and remove laitance. Immediately thereafter clean the surface using compressed air to remove all the dirt. The surface shall then be compressed cleaned to remove all dirt. Before applying fresh concrete,

the contact surface shall be wetted for at least 6 hours. After the surface has dried, a coat of cement slurry shall be applied uniformly using a brush over the old concrete just before placing the fresh concrete. The fresh concrete shall be placed immediately after applying the cement coats. The fresh concrete shall be thoroughly vibrated near the construction joint so that the mortar from the new concrete flows between the large aggregate and develop proper bond with old concrete. The construction joint shall ensure proper bond and leak proof joint.

If use of metal, rubber or plastic water stops is specified, this shall be cast into joints. Measures shall be taken by the Contractor to ensure that no displacement or distortion of water stops takes place during placing of concrete. The construction joints shall **ensure proper bond and leak proof joint.**

1.4.6 The contractor shall place the concrete by pumping wherever necessary to expedite the progress of work. Nothing extra shall be paid on this account.

1.5 DEFECTS IN CONCRETE

A. CRACKS

If external cracks developed in concrete construction are more than 0.2 mm and in the opinion of the Engineer-in-Charge, these are detrimental to the strength of the construction, the Contractor at his own expense will conduct 'Loading Tests' on the structure in the manner as specified elsewhere in this document. If under such test loads the cracks develop further, the Contractor shall dismantle the construction, carry away the debris, replace the construction and carry out all consequential work thereto.

If any cracks develop in the concrete construction are not more than 0.2 mm or in the opinion of the Engineer-in-Charge, the cracks are not detrimental to the stability of the construction, the Contractor at his own expense shall grout the cracks with neat cement grout or with other composition as directed by Engineer-in-Charge and also at his own expense and risk shall make good to the satisfaction of the Engineer-in-Charge all other works such as plaster, moulding, surface finish, which in the opinion of the Engineer-in-Charge have suffered damage either in appearance or stability owing to such cracks. The Engineer-in-Charge's decision as to the extent of the liability of the Contractor in the above matter shall be final and binding.

B. HONEYCOMBING

If any concrete be found honeycombed or in any way defective, such concrete shall be cut out partially or wholly by the Contractor as per the directions of the Engineer-in-charge and made good at his own risk and cost using pressure grouting or any other technique. If Engineer-in-Charge feels that repaired structure will not be having same strength or shape or uniformity with other exposed surface as original desired structure / original structure, the same shall be rejected by Engineer-in-Charge and required to be dismantled and disposed by contractor at his own cost as instructed by Engineer-in-Charge. Decision of the Engineer-in-Charge shall be final binding in this regard.

On no account shall concrete surfaces be patched or covered up or damaged concrete

rectified or replaced until the Engineer-in-Charge or his representative has inspected the works and issued written instructions for rectification. Failure to observe this procedure will render that portion of the works liable to rejection. Contractor shall submit methodology for rectification of defects for approval. Proprietary products for concrete repair shall be used.

SPECIALISED ITEMS/ WORKS

1.0 The Contractor shall associate specialized agencies meeting eligibility criteria as detailed below for specialized nature of items / work listed below:

S. No.	Specialized work(s)/ item of work (s)	Eligibility Criteria for Specialized Agency to be associated by contractor for the work
1	Water proofing treatment works	Three specialized works of similar nature, each costing not less than amount equal to 40% of tendered amount of corresponding specialized item(s), OR Two specialized works of similar nature, each costing not less than amount equal to 60% of tendered amount of corresponding specialized item(s), OR One specialized work of similar nature, each costing not less than amount equal to 80% of tendered amount of corresponding specialized item(s), in last 7 years ending last day of the month previous to the one in which the tenders are invited. Value of amount shall be enhanced @7% per annum from date of completion to previous day of submission of bid.
2	Post Construction Anti-termite chemical treatment	
3	Diaphragm walls	
4	Special foundations including all types of piles	
5	Water Treatment Plants	
6	Synthetic play area surface for games	
7	Custom made wooden furniture (factory made)	

2.0 The main contractor shall submit name and credentials w.r.t. meeting eligibility criteria for specialize agency he propose to associate for the specialize work(s). The approval of specialize agency shall be given by Engineer-in-charge of work. The Contractor and the associated specialized agencies shall give required affidavit to confirm their association.

3.0 However, the contractor shall also be eligible to carry out himself any or all of these works without associating any specialized agency provided:

(a) He fulfils the prescribed eligibility criteria respectively for these work(s). or

(b) He directly procures the equipment of approved make from manufacturer and get it installed from authorised agency/service provider of the manufacturer or specialized agency as per criteria mentioned above.

4.0 Contractor has to submit Bank Guarantee or Guarantee bond for these items for specific mentioned period. Proforma is given hereinafter. If no Performa is available, same shall be approved by Engineer in charge.

Sl. No.	Items	Bank Guarantee or Guarantee bond	Period
1.	NA	Yes	10 Years

2.0 Wherever work is specified to be done or material procured through specialized agencies, their names shall be got approved well in advance from Engineer- in-charge of relevant component. Failure to do so shall not justify delay in execution of work. It is suggested that immediately after award of work, contractor should negotiate with concerned specialist agencies and send their names for approval to Engineer-in-charge. Any material procured without prior approval of Engineer- in-charge in writing is liable to be rejected. Engineer- in-charge reserves right to get the materials tested in laboratories of his choice before final acceptance. Non standard materials shall not be accepted.

~~6.0 GUARANTEE FOR POLYCARBONATE PANELS~~

~~Ten years guarantee in prescribed Performa as decided by Engineer in charge must be given by the contractor for the item nos. 7 & 8. In addition 05% (Five percent) of the cost of this item would be retained as guarantee to watch the performance of the work executed. However half of this amount (withheld) would be released 05 (five) years after the date of completion of the work, if the performance of the item no. 7 & 8 works is satisfactory.~~

~~The remaining 50% withheld amount can be released after completion of 10 (Ten) years after the date of completion of the work if performance of the polycarbonate Panels work is satisfactory. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days and, if not attended to, the same shall be got done by other agency at the risk and cost of the contractor. In any case the guaranteeing firms during the guarantee period should inspect and examine the treatment once in every year and make good any defect observed. However, the security deposit can be released in full, if Bank Guarantee of equivalent or more amount for 11(Eleven) years validity is deposited to the department.~~

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

The Agreement made this .....day of ..... two thousand and ..... between .....son of ..... of ..... (hereinafter called the Guarantor of the one part) and the INDIAN INSTITUTE OF TECHNOLOGY INDORE (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 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 INDIAN INSTITUTE OF TECHNOLOGY INDORE on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of

1.

2.

Signed for and on behalf of THE INDIAN INSTITUTE OF TECHNOLOGY INDORE by .....in the presence of

Annexure-V

GUARANTEE BONDS/AFFIDAVIT FOR WORK

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ANTI TERMITE TREATMENT, DIAPHRAGM WALLS, SPECIAL FOUNDATIONS INCLUDING ALL TYPES OF PILES, WATER TREATMENT PLANTS, SYNTHETIC PLAY AREA SURFACE FOR GAMES, CUSTOM MADE WOODEN FURNITURE (FACTORY MADE)

The agreement made this _____ day of _____ two thousand and _____ between _____ S/o _____ (hereinafter called the GUARANTOR of the one part) and the INDIAN INSTITUTE OF TECHNOLOGY INDORE (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract. (Herein after called the Contract) dated _____ and made between the GUARANTOR OF THE ONE PART AND the Government of the other part, whereby the contractor interalia, under look to render the work in the said contract recited structurally stable workmanship and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guarantee against faulty workmanship , finishing, manufacturing defects of materials and leakages etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, after the expiry of maintenance period prescribed in the contract for the minimum life of **Ten years,** to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

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

During the period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer in charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other contractor at the guarantor's cost and risk. The decision of the Engineer in charge as to the cost payable by the Guarantor shall be final and binding.

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

IN WITHNES WHEREOF those presents have been executed by the obligator _____ and _____ by for and on behalf of the INDIAN INSTITUTE OF

TECHNOLOGY INDORE on the day , month and year first above written.

Signed sealed and delivered by OBLIGATOR in presence of :.

1. _____

2. _____

SIGNED FOR AND ON BEHALF OF THE INDIAN INSTITUTE OF TECHNOLOGY INDORE BY_____ _____ in the presence of :

1. _____

2. _____

A. GRANITE STONE WORK SPECIAL CONDITION

A.1 Granite Stone Slab / Flooring

The granite stone shall be of approved shade and sources as mentioned in the Schedule of Quantities and their size and the thickness shall be as shown on the drawings and as approved by the consultant/engineer-in-charge. They shall be of selected quality, dense, uniform and homogenous in texture and free from cracks or other structural defects. It shall have even and cry stalling grains. The surface shall be machine polished to an even and perfectly plain surface and edges machine cut, true and square. The rear face shall be rough enough to provide a key for the mortar. No slab shall be rough enough to provide a loose key for the mortar. No slab shall be thinner than the specified thickness at its thinnest part. The dimensions of the slabs shall be as specified. A few approved samples of finished slabs to be used shall be submitted by the contractor to Engineer-in-Charge.

A.2 Laying

The sub-grade concrete or R.C.C. slab on which stone slab is to be laid shall be cleaned, wetted and mopped. The bedding for the stone slab shall be cement mortar 1:4 (1 cement: 4 coarse sand) or as specified in the Schedule of Quantities.

The bedding mortar shall be spread to required thickness. The slab shall be washed clean and then laid on top of the mortar layer, pressed, tapped with a wooden mallet and brought to level with adjacent slabs. It shall then be carefully lifted and laid aside. The top surface of the mortar shall then be corrected by adding fresh mortar at hollows. The mortar should be allowed to harden a bit. Cement slurry of 4.4 kg of cement per square meter shall then be spread. Edges of slabs already laid shall be buffered with white cement mixed with pigment. The granite slabs shall then be placed in position and tapped with a wooden mallet till the slab is properly embedded in line and level. The joints between slabs be as fine as possible. The surplus cement slurry oozing from joints shall be cleaned. The slabs shall be matched as shown in drawing. **The flooring shall be cured at least for (07) seven days.** The setting out and line out of the entire pattern with check key points mentioned in the drawing shall be marked on site first, get it approved from the engineer in charge and then proceed for installation. The spacers / enhanced grooves mentioned in the drawing shall be plotted on site as well to achieve the accuracy of the flooring layout at site. All stone sizes as per given pattern shall be cut to high level of accuracy with no tolerance, checked duly before installation. Any mistake / wrongly done pattern at site need to removed and redone as per instructions of Engineer-in-Charge.

A.3 Polishing and Finishing

The finishing shall be of mirror polish conforming to CPWD Specifications and as per item of BOQ.

For the purpose of river finish texture and sand blasting finish to the granite stone, same need to be achieved as per requirement of the consultant of aesthetical and safety appearance. The stone shall be pre texture in the factory and then to be installed with precision and all carefulness at site protecting its edges and corners. Damage to the edges and corners will liable to rejection of such stone piece. The texture formed on granite shall be completely uniform in nature and application revealing its true appearance. Any crack, visible as well as hair line, needs to be accessed by contractor before putting stone for texture to avoid rejection of such stone at site. Samples of the said textures for all type of granite stones shall be approved first from Consultant / Engineer-in-Charge before mass procurement. All the parapet tops, window sills, skirting's, plantar tops, tread risers as mentioned in the drawing shall be pre textured before installation.

A.4 Measurements

The measurement shall be in square meter correct to two decimal places. The length and breadth shall be measured correct to a cm from wall to wall as actually laid.

A.5 Granite Stone in Risers of Steps and Skirting as required

A.5.1 Granite Stone Slabs

The stone slabs for risers / skirting shall be the same as per granite flooring or as specified in the Schedule of Quantities as pre direction of engineer in charge.

A.6 Preparation of Surface

Where required, the wall surface shall be cut uniformly to requisite depth so that the skirting face shall have uniform projection from the finished face of wall as per drawings or as directed by the engineer. The concrete walls shall be hacked and roughened with wire brushes. Masonry walls shall have joints racked at least 15 mm deep. The surface shall be thoroughly cleaned, washed and kept wet.

A.7 Laying

The risers of steps and skirting shall be set in grey or white cement with an admixture to match the shade of stone, with the line of slab at an average distance of 12 mm from the wall but not less than 10 mm. If necessary, the slabs shall be held in position by temporary M.S. hooks at suitable intervals. The joints shall be left to harden, then the rear of the skirting or riser slab shall be packed with cement mortar 1:3 (1 cement : 3 coarse sand). The fixing hooks shall be removed after the backing mortar is set. The joint shall be as fine as possible.

A.8 Polishing & Finishing

The finishing shall be of mirror polish conforming to CPWD Specifications and as per item of BOQ.

A.9 Measurements

The measurement shall be in square meter correct to two decimal places. The length and breadth shall be measured correct to a cm from wall to wall as actually laid.

A.10 Granite Cladding on Walls

In case of reinforced cement concrete or brick work backing the lining shall be secured to the backing after it has set. The S.S. clamps as mentioned in drawing shall be fixed in backing while laying at the required positions as specified in the description of items in the BOQ. The grouting for veneering/ photo frame work shall be full of mortar; hollows noticed shall be made good by taking out the marble slab and re fixing.

The measurement shall be in square meter or as specified in Schedule of Quantities, correct to two decimal places. The length and breadth shall be measured correct to a cm.

A.11 Glass Mosaic Tiles

The surface of the wall or floor is to be plastered with cement mortar 1:4 and allowed to set for a day. A coat of 12 mm thick cement mixed in lime water is to be then spread over the surface. After about half an hour, a thin coating of white cement for other coloured tiles is to be then applied. On this the sheets of mosaic tiles are to be placed and tapped gently with a wooden mallet to get the tiles in proper level. The paper is then soaked with water and peeled out carefully so as not to disturb the tiles from their positions. Any piece not in level or which is broken while tapping shall be pulled out immediately with a sharp instrument and then replaced without leaving time for the cement to set. After removing the paper, the mosaic surface is to be washed with water using a thin brass brush, thus removing the excess cement. On setting of cement, the tiles shall be polished with fine cloth or cotton waste. The surface is to be watered twice a day for four to five days.

The colour and type selection shall be as per approval by Consultant / Engineer-in-Charge. It shall be laid as per pattern specified.

The measurement shall be in square meter or as specified in Schedule of Quantities, correct to two decimal places. The length and breadth shall be measured correct to a cm as per CPWD specification.

A.12

FLOORING,SKIRTING,VENEERING,DADO,TREADS&RISERSOFSTEPS,JAMBS,SILLS& SOFFITS

A.13 Nothing extra shall be payable for using combination of marble, granite.kota, sand stone slabs & ceramic tiles etc. in the required pattern at various locations.

A.14 Nothing extra will be paid for the additional thickness of bed mortar/or wall that will be required to achieve uniform finished surfaces as per architectural drawing on account of difference in specified thickness of marble, granite, Kota stone, sand stone vitrified, CC tile & ceramic tiles etc. In order to keep the floor finish as per architectural drawings and to provide required thickness of the flooring as per specification, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the contractor.

A.15 Flooring in toilets, verandah, kitchen, courtyard etc. shall be laid to the required slope/gradient as per the directions of Engineer-in-charge.

A.16 The pattern, spacing and locations of joints shall be as per drawings and direction of the Engineer-in-charge.

A.17 All the stone used at site shall be of natural colour. Stone having industrial processing with colour and dye for enhancing the colour is not accepted and will not be paid. The agency has to replace the industrial processed stone with natural colour stone at his risk and cost.

A.18 The Granite/Marble at sills and Jambs/soffit of door/window, planter top & facia shall be measured and paid in Item 8.2 of DSR 2021 VOL 1.

MATERIAL AND QUALITY ASSURANCE

1 The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship, and correct construction methodologies to be adopted. He shall have to submit quality assurance program within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.

2 The Following Conditions to the specification shall however apply: -

3 All stone aggregates shall be of hard stone variety to be obtained from approved quarries conforming to CPWD specification or as approved by the Engineer- in- charge. Sand to be used for cement concrete work, mortar for masonry and plaster work shall be of standard quality. Sand shall be obtained from approved quarry.

4 The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement; to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

5 The contractor shall submit shop drawings of staging and shuttering arrangement, aluminum work, and other works as desired by Engineer In Charge for his approval before execution. The contractor shall also submit bar bending schedule for approval of Engineer –in – charge before execution.

Other Laboratories:

B1 The contractor shall arrange carrying out all tests required under the agreement through the laboratory/ Govt Lab/ Institute as approved by the Engineer-in-Charge and shall bear all charges in connection therewith including charges for testing for all materials.

1. Sampling of Materials

C1 Sample of building materials fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used in case the above are not available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work.

C2 The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by

the Engineer-in-Charge. Same shall be removed from the site within the time as directed by the Engineer-in charge at their own cost.

C3 BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides. of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and/or the work done.

C4 The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.

C5 All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

C6 The contractor shall be fully responsible for the safe custody of the materials issued to him even if the materials are in double lock and key system.

C7 The Stone aggregate/stone, sand shall be brought from any quarries subjected to the said materials confirm CPWD specifications.

The day to day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the Assistant Engineer-in-Charge of work and which shall be duly signed by the contractor or his authorized representative.

6 The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. Nothing extra shall be payable to the contractor on this account. However, cost of photographs, slides, audio / videography etc. shall be borne by the department.

7 The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system. Separate cement registers showing the receipt of the OPC and PPC (as required) shall be maintained at site. The contractor shall construct separate go downs for storage of OPC & PPC at site and nothing extra on this account shall be payable.

8. In case there is any discrepancy in frequency of testing as given in the list of mandatory tests and that in the individual sub-head of work as per CPWD specification 2019 Vol. 1 & 2, the higher of the two frequencies of testing shall be adopted.

9. Maintenance of Register:

All the register of tests to be carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to CPWD field staff.

(i) The registers to be issued to the contractor are:

a) Materials at site account register.

b) Cement register.

c) Master test registers.

d) Cube test register.

e) Paint register.

f) Any other registers as decided by the Engineer-in-charge relevant to work.

(ii) All the entries in the register will be made by the designated engineering staff of the contractor and same should be regularly reviewed by JE/AE/EE/PIC.

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

(iv) Submission of copy of all test registers, material at site register along with each alternate running account bill and final bill shall be mandatory. These registers should be duly checked by AE (P) in division office.

GENERAL TERMS AND CONDITIONS

1 The order of preference in case of any discrepancy under "Conditions of Contract" given in standard CPWD contract form may be read as the following:

i) Nomenclature of items as per schedule of quantities.

ii) Particular specification and special condition, if any.

iii) CPWD specifications.

iv) Architectural Drawings.

v) Indian standard specifications of B.I.S.

vi) Sound Engineering Practice.

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

2 Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of items in the schedule of quantities the work shall generally be carried out in accordance with the "CPWD specifications 2019 Vol. 1 and Vol. 2 (with up-to-date correction slips). (Hereinafter to be referred to as CPWD specifications) and instructions of Engineer-in-Charge. Wherever CPWD specifications are silent the latest IS codes/specification shall be followed.

3 Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same. Extra payment for centering/shuttering, if required to be done for heights greater than 3.5 m shall however be admissible at the rates arrived at in accordance with clause 12 of the agreement, if not already specified.

4 The proposed building is a prestigious project and quality of work is paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment's to execute the work. Many items like stone masonry & stone cladding works, stone flooring, and structural glazing, PVDF coating aluminum composite panel and other specialized flooring work, Woodwork will specially require engagement of skilled workers having experience particularly in execution of such items.

5. a) The contractor (s) shall inspect the site of work before tendering and acquaint himself with the site Conditions and no claim on this account shall be entertained by the department.
b) The contractor (s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.

6 The contractor (s) shall study the soil investigation report for the site, available in the office of the Engineer-in-Charge and satisfy him about complete characteristics of soil and other parameters of site. However, no claim on the alleged inadequacy or incorrectness of the soil data shall be entertained.

7 The tenderer shall see the approaches to the site. In case any approach from main road is required by the contractor, the same shall be made good, improved and maintained by the contractor at his own cost. No payment shall be made on this account.

8 The contractor (s) shall give to the Municipality, Police and other authorities all necessary notices etc. that may be required by law and obtain all requisite Licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain light and other illumination on for cautioning the public at night.

9 The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work. The contractor shall be responsible for all damages and accidents due to negligence on his part.

10 Contractor shall provide permanent benchmarks and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.

11 The contractor shall make his own arrangement for obtaining electric connection(s) if required and make necessary payments directly to the department concerned.

12 Other agencies doing works related with this project may also simultaneously execute their works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work, pipes cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for the other agencies. Nothing extra over the Agreement rates shall be paid for doing these.

13 Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on account of the same.

14 The contractor shall fully comply with all legal orders and directions of the Public or local authorities or municipality and adhere to their rules and regulations and pay all fees and

charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.

15 The building work shall be carried out in the manner complying in all respects with the requirements of the relevant by-laws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.

16 The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted by making his own arrangements for water supply, electricity etc. and nothing extra whatsoever shall be payable for the same.

17 If as per local Municipal regulations, huts for labour are not to be erected at the site of work; the contractor shall be required to provide such accommodation at a place as is acceptable to the local body and nothing extra shall be paid on this account.

18 It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.

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

20 The contractor shall maintain in perfect condition all portions executed till completion of the entire work allotted to him. Where, however phased delivery of work is contemplated these provisions shall apply separately to each phase.

21 The entire royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingles, sand etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.

The same shall be deemed to be included in the rates tendered by the contractor and nothing extra will be paid for the same.

22 PROGRAMME CHART

i) The contractor shall prepare an integrated programme chart for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the programme within the stipulated period or earlier as indicated in the mile stones under clause 5 of the contract and submit the same for approval to the Engineer-in-Charge within ten days of the award of the contract.

ii) The programmed chart should include the following: -

a) Descriptive note explaining sequence of various activities.

b) Network (PERT/CPM/BAR CHART)

c) Programme for procurement of materials by the contractor

d) Programme of procurement of machinery/equipment's having adequate capacity commensurate with the quantum of work to be done within the stipulated period by the contractor.

23 If it appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved programme referred above, the contractor shall produce a revised programme showing the modifications to the approved programme to ensure completion of the work within the stipulated time for completion.

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

25 If the work is carried out in more than one shift or during night, no claim on these accounts shall be entertained.

26 Existing drains, pipes, cables, overhead wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

27 The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

28 The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department.

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

30 The contractor shall take instructions from the Engineer-in-charge for stacking of materials. No excavated earth or building materials etc. shall be stacked/collected in areas where other buildings, roads, services, compound walls etc. are to be constructed.

Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

31 The contractor shall submit for the approval of Engineer-in-Charge names of specialized agencies of repute along with their technical capacity proposed to be engaged by him, who must have executed satisfactorily works of value as specified in mandatory conditions.

i) The works shall be carried out in accordance with the Architectural drawings and structural drawings, to be issued from time to time by the Engineer-in-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available thereof is complete and unambiguous. The discrepancy, if any shall be brought to the notice of the Engineer-in-Charge before execution of the work. The contractor alone shall be responsible for any loss or damage executing by the commencement of work on the basis of any erroneous and or incomplete information.

ii) Other agencies will also simultaneously execute and install the works of electrification, air conditioning, lifts, firefighting etc. for this work and the contractor shall provide necessary facilities for the same. The contractor shall leave such recesses, holes openings etc. as may be required for the electric, air-conditioning and other related works (for which inserts, sleeves, brackets, conduits base pinion, 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 & brick work, if required and nothing extra shall be payable on this account.

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

iv) All Architectural drawings given in the tender other than those indicated in nomenclature of items are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Engineer-in-Charge.

32 Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed.

Unless otherwise specified in the schedule of quantities the rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. Those conditions shall be considered to include water from any

source such as inflow of flood, surface and sub-soil water etc. and shall apply to the execution in any season.

33 On completion of work, the contractor shall submit at his own cost four prints of "as built" drawings to the Engineer-in-Charge within 30 days of completion of work. These drawings shall have the following information:

a) Route of all piping and their diameters including soil waste pipes & vertical stacks.

b) Ground and invert levels of all drainage pipes together with locations of all manholes and connections upto outfall.

c) Route of all water supply lines with diameters, location of control valves, access panels etc.

34 No extra payment will be made for operation/activity mentioned at Serial no.1 to 33 above, unless specified otherwise.

35 Condition regarding secured advance: -

Secured advance shall be admissible only on those bona-fide materials which are likely to be used in the work in a period not exceeding **45 days** from the date of secured advance payment. If agency fails to use the material (in respect of which secured advance have been paid) in the work in this specified period of **45 days,** the said component of secured advance shall be recovered from next running account bill paid to the agency. Secured advance on the same material shall not be paid again.

Salient/ Mandatory Requirement for Tender

The tenderer is advised to read and examine the tender documents for the work and the set of drawings available with Engineer-in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.

- A separate schedule of quantity is included in this tender for civil and electrical items of work. If the tenderer wants to offer any unconditional rebates on their rates, the same should also be offered in the respective components of civil and electrical schedule separately. The contractor shall quote the item rates in figures and words accurately so that there is no discrepancy in rates written in figures and words.

- Time allowed for the execution of work is 02 Months.

- The contractor(s) shall submit a detailed program of execution in accordance with the master program/ milestone within ten days from the date of issue of award letter.

- Contractor has to arrange and install field laboratory during the currency of work and nothing extra will be paid on this account.

- Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant paras.

- Contractor has to deploy required Plant and machinery on the project. In case the contractor fails to deploy the plant and machinery whenever required and as per the direction of the Engineer-in-charge, he (Engineer-in-charge) shall be at a liberty to get the same deployed at the risk and cost of the contractor.

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

- Temporary Electric connection shall be issued as per request and charges shall be recovered as per actual consumption of units.

- Water will be arranged by contractor at his own sources and not reimbursed by the Institute.

- EPF and ESI, if applicable, will be reimbursed on an actual basis after due verification.

- Any item which is not available in the BOQ or deviated beyond schedule F shall be paid as extra items shall be worked out as actual cost of material and actual cost of labour plus 15% as overhead and profit. The decision of Engineer-In-Charge will be conclusive and final binding on the contractor.

- If BOCW (MP Building & Other Construction Workers Welfare Board), Labour Registration & License, EPF & ESIC Registration not submitted, and then 1st RA Bill will not be paid & cleared till the submission of these documents.

- Certifications like BOCW (MP Building & Other Construction Workers Welfare Board), Labour Registration & License, EPF & ESIC Registration are to be submitted after the issue of Work Order, then only the site will be handed over to you and permission to start the work will be given.

A. QUALITY ASSURANCE OF THE WORK

- The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.

- The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement, to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

B. Other Laboratories:

- 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. The said cost of tests shall be borne by the contractor/department in the manner indicated below.

  - By the contractor, if the results show that the test does not conform to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents

  - By the department, if the results confirm to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents.

  - If the tests, which were to be conducted in the site laboratory, are conducted in other laboratories for whatever the reasons, the cost of such tests shall be borne by the contractor.

C. Sampling of Materials:

- Sample building materials fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used in case the above are not available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work.

- The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-Charge.

- BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate or test certificate from approved testing laboratory to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and/or the work done.

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

- All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

- The contractor shall be fully responsible for the safe custody of the materials issued to him even if the materials are in double lock and key system.

D. ADDITIONAL TERMS AND CONDITIONS

- Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same. Extra payment for centering/shuttering, if required to be done for heights greater than 3.5 m shall however be admissible at the rates arrived at in accordance with clause 12 of the agreement, if not already specified.

- Other agencies doing works related with this project may also simultaneously execute their works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work, pipes cables,

conduits, clamps, boxes and hooks for fan clamps etc. as may be required for the other agencies. Nothing extra over the Agreement rates shall be paid for doing these.

- Some restrictions may be imposed by the security staff etc. on the working and for movement of labor, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on account of the same.

- The contractor shall fully comply with all legal orders and directions of the Public or local authorities or municipality and abide by their rules and regulations and pay all fees and charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.

- The building work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.

- If as per local Municipal regulations, huts for labor are not to be erected at the site of work; the contractor shall be required to provide such accommodation at a place as is acceptable to the local body and nothing extra shall be paid on this account.

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

- For recording measurements and preparing running account bills, the abbreviated nomenclature indicated in the publications Abbreviated Nomenclature of Items of DSR 2021 shall be accepted. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the

- complete nomenclature of the relevant items in the agreement and relevant specifications.

- In case of items for which abbreviated nomenclature is not available in the aforesaid publication and also in case of extra and substituted items for which abbreviated nomenclature are not provided for in the agreement, full nomenclature of item shall be reproduced in the measurement books and bill forms for running account bills.

- For the final bill, however, full nomenclature of all the items shall be adopted in preparing abstract in the measurement books and in the bill forms.

- The contractor shall take instructions from the Engineer-in-charge for stacking of materials. No excavated earth or building materials etc. shall be stacked/ collected in areas where other buildings, roads, services, compound walls etc. are to be constructed.

- Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

- It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.

- In case the supply of timber/steel frames/shutters for doors, windows etc. is made by some other agency, the contractor shall make necessary arrangements for their safe custody on the direction of the Engineer-in-charge till the same are fixed in position by him & nothing extra shall be paid on this account.

- The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.

- The entire royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle sand etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.

- The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by the departments and shall construct suitable go downs, yards at the site of work for storing all materials as to be safe against damage by sun, rain, dampness, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose, at his own cost. Materials to be charged directly to work and stipulated for issue free of cost shall also be issued to the contractor as soon as those are received at site or at the stipulated place of issue. The provision of this para shall apply equally and fully to those as well.

- All materials obtained from the Infrastructure Development Office store or otherwise on receipt shall be checked by the Engineer-in-charge of the work or his representations before use.

- Registers for the materials to be issued by the department shall be maintained as required by the Engineer-in-charge and these shall be signed by the contractor or his authorized agent and representative of Engineer-in-charge on each day of transactions.

SPECIAL CONDITIONS

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

2. The contractor shall get prior approval from Engineer-in-Charge for the area where the construction material or debris can be stored beyond the metaled road. This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
3. The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.

4. 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 vehicle 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.

5. The contractor shall provide masks 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.

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

7. 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.

8. The contractor shall ensure compulsory use of jet in grinding and stone cutting.

9. The contractor shall carry out on-Road-Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.

10. The contractor shall ensure that the DG sets comply emission norms notified by MoEF.

11. 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.
12. 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.

13. The work may involve working in odd hours. No extra payment shall be made on account of the same.

14. No extra payment will be made for operation/activity mentioned at above.

15. MTC of all the material shall be submitted by Agency.

SPECIAL CONDITION FOR MATERIAL

1. The contractor shall at his own expense procure and provide all materials required for the work.
2. The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.
3. All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.
4. The contractor shall also employ necessary watch and ward establishment for the safe custody of materials at his own cost.

ADDITIONAL CONDITIONS FOR CIVIL WORKS

1. a) The contractor (s) shall inspect the site of work before tendering and acquaint himself with the site conditions and no claim on this account shall be entertained by the department.

   b) The contractor (s) shall get him acquainted with nature and extent of the work and satisfy him about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.

2. The contractor (s) shall study the soil investigation report for the site, available in the office of the Engineer-in-Charge and satisfy him about complete characteristics of soil and other parameters of site. However, no claim on the alleged inadequacy or incorrectness of the soil data supplied by the department shall be entertained.

3. The tenderer shall see the approaches to the site. In case any approach from main road is required by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account.

4. The contractor (s) shall give to the Municipality, Police and other authorities all necessary notices etc. that may be required by law and obtain all requisite Licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any.

5. Damage to the adjoining property whether public or private and shall supply and maintain light and other illumination on for cautioning the public at night.

6. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit board red flags, red lights and providing

barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.

7. The contractor shall provide at his own cost suitable weighing surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.

8. Contractors shall provide permanent benchmarks and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.

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

10. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department.

11. The works shall be carried out in accordance with the Architectural drawings and structural drawings, to be issued from time to time by the Engineer-in-Charge.

12. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available thereof is complete and unambiguous. The discrepancy, if any shall be brought to the notice of the Engineer-in-Charge before execution of the work.

13. The contractor alone shall be responsible for any loss or damage executed during the commencement of work on the basis of any erroneous and or incomplete information.

14. The contractor shall take all precautions to avoid accidents by, exhibiting caution boards day and night, speed limit boards, red flags, red light and providing necessary barriers and other measures required from time to time. The contractor shall be responsible for all damages and accidents due to negligence on his part.

15. Other agencies will also simultaneously execute and install the works of electrification, air conditioning, lifts, firefighting etc. for this work and the contractor shall provide necessary facilities for the same. The contractor shall leave such recesses, holes openings etc. as may be required for the electric, air-conditioning and other related works (for which inserts, sleeves, brackets, conduits base pinion, 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 & brick work, if required and nothing extra shall be payable on this account.

16. All materials obtained from Govt. stores or otherwise shall be get checked by the Engineer-in-Charge or his any authorized supervisor staff on receipt of the same at site before use.

17. The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-

Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

18. All Architectural drawings given in the tender other than those indicated in nomenclature of items are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Engineer-in-Charge.

19. If the work is carried out in more than one shift or during the night, no claim on these accounts shall be entertained.

20. Existing drains, pipes, cables, overhead wires, sewer lines, water lines and similar services encountered during the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

21. The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

22. The day-to-day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the Jr. Engineer-in-Charge of work and which shall be duly signed by the contractor or his authorized representative.

23. The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. Nothing extra shall be payable to the contractor on this account. However, cost of photographs, slides, audio/videography etc. shall be borne by the department.

24. The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system.

25. The rate of items of flooring is inclusive of providing sunken flooring at bathrooms, kitchen etc. and nothing extra on these accounts is admissible.

26. No payment shall be made to the contractor for any damage caused by rain, snowfall, floods, earthquake or any other natural causes whatsoever during execution of work. The damages of the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.

27. For construction works which are likely to generate melba/rubbish to the tune of more than a tempo/truck load, contractor shall dispose of melba, rubbish & other unserviceable materials and wastes at their own cost to the notified/specified dumping ground and under no circumstances these shall be stacked/dumped, even temporarily outside the construction premises.

28. The contractor has to follow all safety norms as laid down in National Building Code of India. All the workers shall be equipped with the required safety gadgets while working at site such as ISI marked helmets, Shoes and safety belts, gumboots, gloves etc.

29. The contractor must clean the site and handover in complete respect to IITI after the completion of work.

APPROVED MAKE FOR CIVIL WORKS:

i. Contractor shall adopt materials in work as per approved make of materials annexed in this contract document. Contractor shall submit samples of materials he propose to use for this work for approval of engineer-in-charge. The approved samples shall be preserved at work site in safe custody till completion of whole work. In case any sample submitted by contractor is not approved by Engineer-in- charge, contractor shall arrange and submit alternate samples for approval of engineer-in-charge. The efforts should be made by the contractor to use indigenous products. The agency should also consider the availability of spares parts/components for maintenance purposes while proposing any brand/manufacturer.

ii. Wherever work is specified to be done or material procured through specialized agencies, their names shall be got approved well in advance from Engineer-in-charge. Failure to do so shall not justify delay in execution of work. It is suggested that immediately after award of work, contractor should negotiate with concerned specialist agencies and send their names for approval to Engineer-in-charge. Any material procured without prior approval of Engineer-in-charge in writing is liable to be rejected. Engineer-in-charge reserves right to get the materials tested in laboratories of his choice before final acceptance. Sub standard materials shall not be accepted.

iii. Various factory made materials shall be procured from reputed and approved manufacturers or their authorized dealers and the material shall conform to the make as specified in this contract agreement. However for the items not appearing in the list, preference shall be given to those articles which bear ISI certification marks. In case articles bearing ISI certification marks are not available or where BIS certification system is available for a particular material/product but not even a single producer has so far approached BIS for certification, the material can be used subject to the condition that in such case written approval of the Engineer-in-charge shall be obtained before use of such material in the work.

iv. All materials and articles brought by the contractor to the site for use shall conform to the samples approved, which shall be preserved till the completion of the work. However, such articles which bear ISI mark but stand banned by CPWD/ IITI will not be used. Not with standing the case of materials of "Approved Make" as given, provisions of Clause 10A of the General Conditions of Contract for Central PWD works shall be applicable on the materials of "Approved Make" also.

v. If, in the schedule of quantities / nomenclature of items, the brand / make of product / material has been mentioned. The contractor is required to provide the same brand / make as mentioned in the item. If the same are not available in the market or the suppliers adopts monopolistic practice then the approval of other equivalent brand / make are to be obtained from Engineer-in-charge. The contractor will submit such a case at least (30) Thrity days before the materials is required at site. If the rate of other equivalent brand / make are less than the brand / make mentioned in the item, than necessary cost adjustment will be made for difference in rates.

vi. For items / materials not appearing in the list of approved make of materials, decision of Engineer-in-charge shall be final and binding.

PREFERRED MAKES OF MATERIALS FOR CIVIL WORKS

Preferred makes of materials to be used in the work are as under. In case of non-availability of these makes, the Engineer-in-Charge may allow use of alternative BIS makes of Materials in the work.

Sl. No.	Material	List of Preferred Makes
1	AAC Block	Birla Aerocon, , Orilite, ultratech, ACC, Ecrete Aerocon Buildwell .
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
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, AIS
9	Bitumen	Indian Oil, Hindustan Petroleum, Bharat Petroleum
10	Calcium Silicate Board / Tiles	Aerolite, Hilux, Starpan
11	CC Pavers/Grass pavers / Kerb stone	Nitco, Bharat Regency, Hindustan, Ultra, KJS Concrete, Duracrete, DalalTiles,Mehtab
12	Centrifugally Cast Iron Pipe & Fittings	NECO, BIC, RIF, KAPILANSH, RPMF
13	Ceramic Tiles	Kajaria, Nitco, Johnson,RAK
14	Chequered / Tactile Tiles	Dura, Unistone, Eurocon, Modern, Mehtab, Pavit
15	CI Manhole Cover	BIC, SKF, NICO, Hepco, Kapilansh, RIF, RPMF
16	CI Double flanged non-return valves	Kirloskar, Sant, Kartar
17	CP fittings	Jaquar,, Kohler, Grohe, Prayag polymers pvt. Ltd.
18	CPVC Pipes & Fittings (For Hot & Cold)	Astral ,Ashirvad, Prince, Supreme, Prayag polymers pvt. Ltd.
19	Curtain Carrier / Drapery Rod	Marvel, Vista levlor, Johnson.
20	Dash fastener, Expansion Bolt	Hilti, Bosch, Fischer
21	Hydraulic Door closer, Floor springs	Dorma, Hardwyn,Ozone, Hettich, Hafele ,Kich, Godrej
22	Ductile Iron Pipe (Water Supply)	Electro steel, Kessoram, TATA,Jindal
23	EPDM Gasket	Hanu, Anand, Lescuyer
24	GRC Tile	Unistone, Eurocon, Dazzle
25	Epoxy Grouting Compound	Pidilite, Ferrous Crete(Ferro-102), MYK, LATICRETE
26	Epoxy Primer & Paints	Asian,Nerolac,Berger, Pidilite, CICO, BASF, SIKA
27	Fire Check door	Navair, Godrej, Sukri,shakti
28	Float/Toghned/Frosted Glass Mirror/Fire rated glass	Modi guard, Saint Gobain, AIS
29	Flush Doors (ISI Mark only)	Century, Kitlam, Archid,Greenply A-1 Teak Products – Indore, Greenply, M.P. Wood
30	Friction Stay	Earl-Bihari, Ebco, Hettich
31	Fire Door fitting	Dorma,Ozone,Hettich, Geze , Becker
32	Galvanized/Stainless Steel Anchor Fasteners	Arrow, Hilti, Fischer

33	GI Pipe & fittings	Tata, Zenith, Jindal, Prakash Surya, Swastik,unik,zoloto
34	GI Sheet	Sail, TATA or equivalent
35	Gun Metal Gate Valve	Zoloto, Leader, AUDCO, SANT, Prayag polymers pvt. Ltd.
36	Glass Mosaic Tile	Bisazza, Italia, Palladio, Mridul
37	Gypsum Board (False Ceiling)	Boral Gypsum, India Gypsum, St. Gobain
38	Hardener	Hardcrete of Snowcem India, Pidilite, CICO.
39	HDPE Pipes	Reliance,supreme, prayag polymers
40	Jet Assembly for EWC/Health Faucet	Parryware , Jaquar, Grohe, Kohler, Marc,Hindware
41	Kitchen loft tank	Sintex, TirupatiStructurals Ltd, KMS Plast world P.Ltd. Planet Plastics, Sri Kamakshi Traders, Sreyah Novel InC.
42	Laminate and Veneers	Merino, Greenlam, Formica, Kitlam, Durian, Ventura
43	Locks / Latch	Godrej, Dorma,Ozone Yale or equivalent
44	Marine Plywood / BWP Ply	Duro, Century, Greenlam
45	Melamine Polish	Asian Paints, Pidilite, ICI Dulux, Burger
46	Metal False Ceiling	Nitobond, Armstrong, Trac, Durlum, Lafarge, Anutone, Hi-Steel
47	Mineral Fiber Ceiling	Armstrong, Nitobond, Daiken, Hunter Douglas, Anutone
48	M.S. Pipe	Jindal, Tata, RINL, Prakash Surya, Apollo
49	Multicoat Synthetic Plaster/ Textured Exterior wall paint	Spectrum, Heritage, Ultratech,Asian Paints
50	Ready mix plaster	Ultratech (Readiplaster), ACC, silicoplast, permaplast mix, instaplast, JSW (Enduro plast)
51	Plywood,	Greenply, Century, Duro
52	Polycarbonate Sheet	Ultralite (Bayer), Macrolux, DPI Dayligting, V-Lite
53	Polysulphide / Silicon Sealent	Pidilite, Fosroc, Tuffseal, Chouksey Chemicals
54	POP (Plaster of paris)	JK, Laxmi, SriramNirman, Sakarni
55	PPR Pipes	SFMC, SAFE, Poineer Industries
56	Fire resistant Glass/Toughened glass/IGU	Saint gobain, AIS, modi guard
57	Precoatd Profile Sheet	Tata, Bhushan,NationalEssar, Jindal (JSW)
58	Pre-laminated Particle Board	Ecoboard, Action-Tesa, Duro, Century Ply.
59	PTMT Fittings	Prayag polymers, Supreme ,kingston
60	PVC Cistern	Steelbird, Jindal, Seabird, Prayag polymers pvt. Ltd.
61	PVC Connection Pipe	Supreme, Prince, Finolex
62	PVC Rain Water Pipe & Fitting	Finolax, Kisan, Kasta, Supreme, Astral, Prince
63	Ready Mix Concrete (RMC)	ACC, L&T, Ultratech, Prism Johnson Ltd. RMC Ind division or equivalent as decided by Engineer-in-Charge.
64	PVC Shutter	Rajshri, SintexPolygreen
65	PVC Water storage Tank (Only ISI)	Water well, Plasto, Polycon, Sintex, Prayag polymers.
66	Sluice Valve	Kirloskar, Venus, Kalpana, SANT,
67	Solid PVC frames and shutters	Polygreen, Rajshri, Plastogreen
68	Stainless Steel	Jindal,Dorma,Kich,godrej,Hrdwyn
69	Stainless steel Sink with or without Draining board.	Nirali, Hindware, Jaquar, Prayag polymers pvt. Ltd.
70	Stainless steel Door/Window fittings & Fixtures	Dorma, Ozone, D.Line, Hettich, Kich
71	Structural steel section	TATA, SAIL, RINL, Jindal
72	Super plasticizer / admixture	Sika, Fosroc, Chouksey Chemicals, BASF
73	Tensile Fabric	Bluestone, Encon, Structure Flex,Sergeferrari
74	Tile Adhesive	Ferrous Crete(Ferro-1122), ArdexEndura (Gold Star),

		PIDILITE (Fevimate XL), ,sika,iltratech,Endura
75	Towel Ring/Towel Rod/Towel Rack	Jaquar, Grohe, Kohler
76	UPVC Pipes & Fittings	Astral Flowguard, Ashirvad, Prince, Supreme, Finolex,VECTUS, Prayag polymers pvt. Ltd.
77	UPVC windows(profile)	Fenesta,, Kommerlimg, Aluplast, Duroplast
	UPVC Doors and window hardware	Rotto,Dorset,Kinlong
78	Vitreous China Sanitary ware, Fittings & Fixtures	Hindware, Parryware, Jaquar, Roca
79	Vitrified Tile	Johnson -Marbonite, Kajaria, RAK, NITCO
80	Wall Putty	JK, BIRLA,Asian
81	Waste Pipe	Kamal, Viking, Jaquar
82	Water Proofing Compound (Liquid)	Pidilite, Cico, IFosroc,Roff/Dr fixit/Sika,BASF
83	White Cement	JK White, Birla White, Grasim
84	(i) Ordinary Portland Cement / Portland Pozzolona Cement / Sulphate Resisting Portland cement	ACC, Ultratech, Ambuja Cement, J.K.Cement, Birla, vikramshre, Jaypee cement,
85	Reinforcement Steel TMT bars Fe-500D or more	SAIL, Tata Steel, RastriyaIspat Nigam Ltd (RINL), JSW Steel Ltd., Jindal Steel & Power Ltd.
86	Barbed wire (with required GI coating as per BOQ)	SAIL, Tata , RastriyaIspat Nigam Ltd (RINL), JSW Steel Ltd., Jindal Steel & as per approved by Dept.
87	High pressure laminate sheet	Century, Fundermax, Alstone
88	Galvalume standing seam sheet	Lloyd, multicolor, JSW, Bhushan,
89	CRS steel bars Fe-500D or more	SAIL, Tata Steel, RastriyaIspat Nigam Ltd (RINL), JSW Steel Ltd., Jindal Steel & Power Ltd.

CONTRACT FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

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

The Agreement made this _____ day of _____ Two thousand and _____ between _____ Son of _____ (hereinafter Called the Guarantor of the one part) and the Director IIT Indore (hereinafter called the Government of the other part).

WHEREAS THISagreement is supplementary to a contract (hereinafter called the contract) dated

_____ and made between the GUARANTOR OF THE ONE part and the Government of the other

Part, whereby the contractor, inter alia, undertook to render the buildings and structures in the contract recited completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for 10 (Ten) years from the date after the maintenance period prescribed in the contract.

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

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

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

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

(c) The decision of the Engineer-in –charge with regard to cause of leakage/seepage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water proof to the satisfaction of the Engineer-in–charge at his cost and shall commence the work for the rectification within seven days from the date of issue of the notice from the Engineer-in–charge calling upon him to rectify the defects failing which the work shall be done by the department by some other agency contractor at the

GUARANTOR's risk and cost. The decision of the Engineer-in–charge as to the cost payable by the Guarantor shall be final and binding.

That if guarantor fails to make good all defects or commits breach thereunder then the Guarantor will indemnify the principal and his successors against all loss, damage, cost expense 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 thesepresents have been executed by the Obligor_____ and by _____ and for and on behalf of the Director IIT Indore on the day, month and year first above written

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

1. …….

2. …….

SIGNED FOR AND ON BEHALF OF THE Director IIT Indore OF BY _____ in the presence of:

1. …….

2. …….

Form of Performance Security (Guarantee)

Bank Guarantee Bond

In consideration of the Director IIT Indore (hereinafter called "The Government") having offered to accept the terms and conditions of the proposed agreement between…….and …….....……

(Hereinafter called "the said Contractor(s)") for the work…… (hereinafter

Called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. (Rupees

…… only) as a security/guarantee from the contractor(s) for compliance of his obligations in

accordance with the terms and conditions in the said agreement.

We… ..... (Hereinafter referred to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs. …….. (Rupees……. Only) on demand by the Government.

We, …….(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the Government stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. …….. (Rupees …….only)

We, the said bank further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

We, ……. (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in- Charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

We, ……. (indicate the name of the Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the

said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

We, ……. (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.

This guarantee shall be valid up to ……unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.
…… (Rupees ……..) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the ……..day of ……for……. (indicate the name of the Bank)

Note- 10% amount of water proofing item will be retained as security deposit against water proofing work. The Contractor must submit the FDR/BG against the retained amount (SD) for the time period as mentioned in the bond. The retained amount will be released after submitting the original FDR/ BG.

PART-C

SCHEDULE OF QUANTITIES (CIVIL)

Name of Work: Construction of a room with sliding roof operation of high-end telescope at terrace floor POD 1E IIT Indore.

Price schedule of items (BOQ)

S no	Items	Qty	Unit	Rate	Amount
1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure at all levels above plinth in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	8.00	Cum		
2	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 fine sand(zone-III) : 3 graded stone aggregate 20 mm nominal size).	3.00	Cum		
3	Centering and shuttering including strutting, propping etc. and removal of form for Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proof ply 12 mm thick	8.00	Sqm		
4	TMT Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level	240	Kg		
5	12 mm cement plaster of mix : 1:4 (1 cement: 4 coarse sand)	47.00	Sqm		
6	15 mm cement plaster on rough side of single or half brick wall of mix: 1:4 (1 cement: 4 coarse sand)	47.00	Sqm		
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.	47.00	Sqm		
8	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water thinnable priming coat with cement primer	70.00	Sqm		
9	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	84.00	Sqm		

10	Providing, supplying and fixing internal metal fire rated doors (double/ single leaf) of approved equivalent make with Fire Resistant 120 minutes rating as per manufacturers specifications and similar to the prototype tested by CBRI, Roorkee & certificate issued thereof (as per IS:3614 Part-2, 1992) with overall size as per site requirement. Door frames are made with 1.6mm thick galvanised steel sheet pressed to double rebate profile of size 143x57mm. Door shutters are made with 1.2mm thick galvanised steel sheet pressed formed to provide fully flush double skin panel shall be not less than 46mm thick with lock seam joints at style edges. The internal construction of panel shall be filled with insulating mineral wool with reinforcement at top, bottom and stile surrounds.The door shutters shall be provided with provision for vision panel of required size(as per Architectural drawings) with 6 mm thick clear toughened Boro Silicate glass of Pyran or Scot make to give120 minutes fire rating including vision panel glass shall The item also include provision for required iron mongery, shutter and frame shall be finished with zinc phosphate For double leaf door including concealed lock, H type SS handels (4 nos.), door cloaser and tower bolts etc. as per requirement and direction of Engineer in Charge including Removing of old door & Frame & repairing i.e. finishing, Painting complete in all respect	2.6	Sqm		
11	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes	980	Kg		
12	Providing and fixing of bottom rail and sliding gear arrangement for movement of the roof truss as per the direction of Engineer-In-Charge, including all material, accessories, labour, etc. (Truss will be paid separately under item No. 11)	18	Rmt		
13	Providing mechanical device chain and crank for operating sliding roof less than 10 sqm in area as per the direction of Engineer-In-Charge. (Covered area of roof structure only is payable)	18	Sqm		
14	Providing and fixing of 10 mm thick polycarbonate sheet roofing	24	Sqm		
15	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm	20	Sqm		
16	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	27	Sqm		
17	Providing and fixing of the aluminium glazed ventilator.	0.8	Sqm		