



Telephone:+91-40-20203004	Date:13.01.2023
Website : www.tifrh.res.in	Email: rajasekharr@tifrh.res.in

PUBLIC TENDER

(TWO PART TENDER) for the following Works:

Vibration Isolation work for Laser Hall Petawatt Building at TIFR, Plot-B, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500046.	
Tender No.	TIFR/PD/CF22-160/221690
Type of Tender	Two Part Tender (Part-I: Technical Bid and Part-II: Price Bid)
Estimated Cost	Rs. 87,10,802.00/-
Cost of EMD	Rs.1,74,216/- (Demand Draft to be drawn in favour of “TIFR Centre for Interdisciplinary Sciences”, Payable at Hyderabad (To be enclosed with the Technical Bid Part – I)) However, contractors who have a valid MSME/NSIC certificate are exempted from the EMD.
Pre bidding meeting & Time	19.01.2023 at 11:30 Hrs
Last Date for Submission of Tender	27.01.2023 by 13:00 Hrs
Date of Opening Bids(Only Part-I: Technical Bid)	27.01.2023 at 15:30 Hrs
Tender Fee	Rs. 500/-(Demand Draft to be drawn in favour of “TIFR Centre for Interdisciplinary Sciences ”Payable at Hyderabad (To be enclosed with the Technical Bid Part –I)).

- In case the Part “I” and Part “II” bids are not sealed in separate envelopes the tender will be rejected.
- The technical bid should not contain any indication of the price.
- The Technical Bid received without payment of tender fees and EMD shall be summarily rejected.

- Quotation sent by hand delivery/courier are to be handover at security after obtaining stamp, date and signature of the concern person at security.

Sealed tenders are invited for the aforesaid works from contractors having similar work experience in reputed Research Institutions, Universities, Central Government/Public Sector Undertaking, Private Laboratories, Multinational Companies, etc. Interested contractors who are satisfying prequalification criteria stipulated by TIFR-Hyderabad shall only submit their bids. For further details and any clarification on the tender you may please contact Head-Technical Services, Survey No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad-500046.

Last date for submission of the tender is 27.01.2023 by 13:00 Hrs.

A handwritten signature in black ink, appearing to read 'Rajasekhar. R', with a checkmark at the end.

(Rajasekhar. R)

Head-Technical Services



TENDER DOCUMENT

Vibration Isolation work for Laser Hall Petawatt Building at TIFR, Plot-B, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad - 500 046.

NAME OF THE TENDERER:.....

Address:

.....
.....
.....

Last date of submission of the tender: On or before 27.01.2023 by 13:00 Hrs.

INVITATION OF BIDS

FOR

**Vibration Isolation work for Laser Hall Petawatt Building at TIFR,
Plot-B, Survey No.36/P, Gopanpally (Village), Serilingampally
(Mandal), RANGA Reddy Dist., Hyderabad – 500 046**

TECHNICAL BID

PART-I

Tender Notice	:	TIFR/PD/CF22-160/221690
Name of Work	:	Vibration Isolation work for Laser Hall Petawatt Building at Plot-B, TIFR, Hyderabad.
Location	:	Tata Institute of Fundamental Research Survey No. 36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad – 500046.
Estimated Cost	:	Rs.87,10,802/-
EMD	:	Rs.1,74,216/- (Demand Draft to be drawn in favour of “TIFR Centre for Interdisciplinary Sciences”, Payable at Hyderabad (To be enclosed with the Technical Bid Part – I))
Delivery Period	:	180 Days (Completion Period)
Validity	:	Seventy Five (75) days after opening of Part-I, Technical Bid

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SECTION-I**IMPORTANT INFORMATION****INTRODUCTION**

The Tata Institute of Fundamental Research is a National Centre of the Government of India, under the umbrella of the Department of Atomic Energy, as well as a deemed University awarding degrees for master's and doctoral programs. Tata Institute of Fundamental Research Centre for Interdisciplinary Sciences, Hyderabad invites bids for the following work:

Name of Work: Vibration Isolation work for Laser Hall Petawatt Building at TIFR, Plot-B, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500 046.

1. PARTICULARS

a)	considered area	480 Sqm
b)	Location	TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500 046.
c)	Pre-Bid Meeting Date & Time	19.01.2023 at 11:30 Hrs
d)	Closing date & time of receipt of bids	27.01.2023 by 13:00 Hrs
e)	Date & time of opening of Sealed Cover-I containing Technical Bid	27.01.2023 at 15:30 Hrs.
f)	Date of opening of Sealed cover-II containing Financial Bid of eligible bidders	To be intimated to eligible bidders after completion of technical evaluation.

2. GENERAL INSTRUCTIONS

- 2.1. TIFR shall award the contract for the project through the two Bid systems.
- 2.2. The Contractors are advised to visit and examine the site of work and its surroundings and obtain any information that may be necessary, in addition to those provided in this document. The Contractor shall be deemed to have fully acquainted himself about the site condition, whether he inspects it or not.

- 2.3. The Contractor should adhere to the building bye-laws applicable for the area.
- 2.4. All clarifications shall be sought before the date of pre-bid meeting. The bidders may make suggestions which shall be considered during the Pre Bid Meeting. No further clarifications shall be issued after the issue of noteworthy replies to the pre-bid queries.
- 2.5. The submission of the bid by Contractor would imply that they have carefully read and agreed to the terms and conditions contained in this bid document.
- 2.6. The bid for the work shall remain open for acceptance for a period of **75 (Seventy Five) days** from the date of submission of the bids, which period may be extended by mutual agreement and the Contractor shall not cancel or withdraw the offer during this period. This bid document shall form a part of the contract agreement.
- 2.7. Fluctuation: Bidder must consider the price fluctuation going to happen in the bid validity period (i.e, 75 days + execution period 180 days).
- 2.8. Action for withdrawal: The bidder can't withdraw the bid within the validity period. If any bidder withdraws his bid during above said period then action will be taken as per tender clause & declaration.

3. SUBMISSION OF BIDS

Bids shall be submitted to Head- Technical Services, **TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist, Hyderabad-500046** in a sealed Master envelope super scribed "Bid for **Vibration Isolation work for Laser Hall Petawatt Building at Plot-B, TIFR** with our enquiry no. and due date, containing two separate sealed covers clearly super scribed as "**Technical Bid**" and "**Financial Bid**" before the closing date and time of submission in the following manner:

- a) "**Technical Bid**": This will contain Technical part, Eligibility Documents along with testimonials. Earnest Money Deposit (EMD)
- b) "**Financial Bid**": This will contain the complete financial bidding document with duly filled in Schedule of Financial Quote of Financial Bid & Tender Drawings.

The Bids without signature of the authorized person of bidder and seal, Without EMD, with conditions or conditional rebates shall be summarily rejected.

4. EVALUATION OF BID :

- 4.1. **EVALUATION OF TECHNICAL BID:** The bids received will first be first opened and will be examined for Tender Fee, EMD Eligibility Criteria, Conditions, etc. Conditional Tenders and Tenders without EMD shall be summarily rejected.

- 4.2. **EVALUATION OF FINANCIAL BID:** The Financial Bid should contain the complete financial bid document with duly filled in Schedule of Financial Quote of Financial Bid and signed Tender drawings. Financial Bids of Technically qualified Bidders will only be opened. Work will be awarded to lowest bidder (L1) based on their quotes after making necessary arithmetical checks.

5. SCOPE & OBJECTIVE

The Objective of the tender is to **Vibration Isolation work for Laser Hall Petawatt Building at Plot-B, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad – 500 046** as per the specifications and Bill of quantities mentioned in the Financial Bid.

Period of Completion of Work: 180 days from the date of issue of work order

Defect Liability Period: 12 months from the date of handing over of completed structure as per tender.

6. PAYMENT SCHEDULE:

The contractor shall submit the bills for payments along with a detailed statement showing the actual works carried out under different heads of items in the format specified by the TIFR. Minimum value of the work for interim payment (3 Running Bills) shall be Rs.25,00,000/-. All interim and final bills will be settled based on the joint measurements of each item of works and certified by TIFR Engineer. The TIFR Officers may sanction the secured advance up to an amount not exceeding 90% of the value of the materials as assessed by the Engineer-in-charge, or an amount not exceeding 90% of the material element cost in the tendered rate of the finished item of work, whichever is lower on production of sufficient documentary evidence i.e. Original invoice, inventory, Insurance for the fire and theft etc. All interim bills will be paid within 15 days from the date of submission and Final Bill will be settled within 30 days from the date of submission with certification of TIFR Engineer.

SECTION-II

ELIGIBILITY CRITERIA FOR TENDER QUALIFICATION

A. Eligibility Criteria for Tender Qualification:

1. The Agencies/Contractors will be qualified for Vibration Isolation work for Laser Hall Petawatt Building at TIFR, Plot-B, Survey No. 36/P, Gopanpally Village , Serilingampally Mandal, Ranga Reddy District, Hyderabad under following eligibility criteria.

• **Eligibility criteria:**

1. The Agencies/Contractors should have an average annual turnover of Rs.43.55 lakhs during three previous **financial years** ending March 31, 2022.
2. The Agencies/Contractors shall be register and should submit valid PAN from Income Tax Authority, GST registration No. etc. and any other registration applicable/mandatory for contract.
3. The Agencies/Contractors should have executed similar works successfully at least
 - 3.1. **One similar work having RCC quantity more than 268 Cum costing Rs.69.68 Lakhs or**
 - 3.2. **Two similar works having RCC quantity more than 201 Cum costing Rs. 52.26 Lakhs or**
 - 3.3. **Three similar works having RCC quantity more than 134 Cum costing Rs. 34.84 Lakhs** during the last 7 financial years ended on last date of receipt of tender for Research Institutes, Universities, Private Laboratories, R & D institutes, etc. in any Government /PSU/Private organizations of repute.

The Agencies/Contractors should furnish copies work completion certificates and purchase order along with bill of quantities from the clients in support of the above.

4. The Agencies/Contractor shall be registered with Government/Semi Government/Municipal Authorities of any other Public Organization (Enclose certified copies of document as evidence)
5. IT Returns for the last three consecutive **financial years** ended on March 31, 2022 audited by CA.
6. The Agencies/Contractors shall submit a valid solvency certificate for an amount of Rs.34.84 Lakhs from a bank.

Note:

- ❖ Agencies/Contractors should have a full-fledged in-house project management team to undertake the jobs.
- ❖ The Agencies/Contractors shall **strictly furnish** aforesaid information in the formats/schedules given. **Non adherence to furnishing of information in the given format/schedules given will lead to disqualification of tender.**
- ❖ Instructions to Agencies/Contractors for furnishing the information is given as under:
 - Each page of the application shall be signed by a person having necessary authority to do so.
 - If the space in the proforma is insufficient for furnishing full details, such information may be given in separate sheets.
 - Applicants are required to furnish information against each item of the application. In case a certain item is not applicable, please write NA. Application containing incorrect and or inadequate information is liable to be rejected.
 - For any further clarification, The applicant may contact Tata Institute of Fundamental Research, Survey No. 36/P, Gopanpally Junction, Post: Gopanpally, Srilingampally, Hyderabad – 500 046.

SCHEDULE – A
BASIC INFORMATION

1. Name of the firm :
2. a) Address :
- b) Telephone / Fax No. :
- c) Mobile No. Contact Person :
- d) PAN No. :
- e) GST Registration No. :
- f) Labour License Details :
- g) Branch Office if any in Hyderabad :
3. Type of Organization (Proprietorships / Partnership) Ltd. Co. / Co-Operative) :
(Copy of relevant document to be enclosed)
4. Date of Incorporation :
5. Nature of Business :
6. Experience as prime Agencies/ Contractors (in Yrs.) :
7. Name and address of Bankers :
8. Organization chart of the Company including names and positions of directors / key personnel :

Signature of the Applicant (s)



TATA INSTITUTE OF FUNDAMENTAL RESEARCH
(Autonomous Institution of the Department of Atomic Energy, Government of India)
Survey No.36/P, Gopanpally Village, Serilingampally Mandal,,Ranga Reddy
District, Hyderabad-500046, Telangana

SCHEDULE – B

Major Vibration Isolation work for Laser Hall Petawatt Building (Copies of the completion certificate to be enclosed)

A. Similar work of costing Rs 69.68 lakhs or two similar works of costing Rs.52.26 lakhs or 3 similar works of costing Rs.34.84 lakhs during last 7 financial year ending on last date of receipt of tender for Research Institutes, Universities, Private Laboratories, R & D institutes, etc

Sr.No	Name of the project & Address	Description of work in brief	Name of the Engineer	Name of the client also indicate whether Govt or semi Govt or Pvt body with full postal address	Contract Amount in Rs.	Year of commencement	Date of Completion		Whether work was left /uncompleted or the contract was terminated from either side? Give Details.	Any other relevant information relevant information
							Stipulated	Actual		
1.										
2.										

B. List of works in progress above Rs.34.84 lakhs

Sr No.	Name of the project & Address	Description of work in brief	Name of the Engineer with full postal address.	Name of the Client. Also indicate whether Govt. or semi Govt. or Pvt. Body with full postal address	Contract Amount in (Rs.)	Date of Completion	Present stage of work with reasons if the work is getting delayed	Any other relevant information
1.								
2.								

Signature of the Applicant (s)

Contractor's Signature with Stamp



SCHEDULE – C

TECHNICAL PERSONNEL & SPECIAL EXPERIENCE

List of technical personnel in your establishment giving details about their technical qualification and experience

Sr No.	Name	Age	Qualifications	Project Experience	Nature of works handled	Name of the project Handled	Date from which employed in your organization	Indicate special experience in Internal Electrification Installation & Testing projects in which were employed
1								
2								

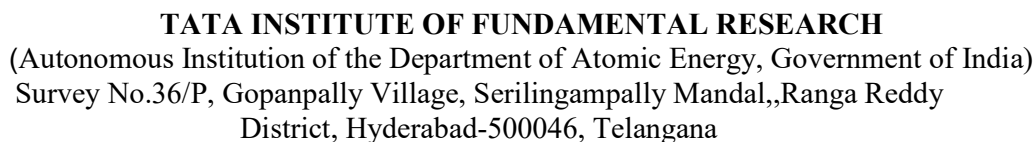
2. Indicate other points if any to show your technical and managerial competency to indicate any important point in your favour.

Signature of the Applicant (s)

SCHEDULE – D

FINANCIAL POSITION AND WORKING RESULTS

		2019-20	2020-21	2021-22
1	Annual turnover	:	Rs.	
2.	Net Profit	:	Rs.	
3.	Credit Facilities from the Bank	:	Rs.	
	a) Cash Credit	:	Rs.	
	b) Overdraft Limit	:	Rs.	
	c) Guarantee	:	Rs.	
	d) Others	:	Rs.	
4.	Certificate from the Bankers regarding financial soundness of the applicant	:	Enclosed (Yes / No)	
5.	Solvency Certificate from the Bankers	:	Enclosed (Yes / No)	



MISCELLANEOUS INFORMATION

- Signature of the Applicant (s)

SECTION-III

NOTICE & INSTRUCTIONS

1. Sealed item rate tenders in the prescribed form are invited from Head-Technical Services, Tata Institute of Fundamental Research, Centre for Interdisciplinary Services, Hyderabad, for the following:

Tender Notice No.	TIFR/PD/CF22-160/221690
Name of Work	Vibration Isolation work for Laser Hall Petwatt Building at TIFR, Plot-B, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500046.
Estimated Cost	Rs.87,10,802/-
Time Limit	180 days (Completion Period)
Earnest Money Deposit	Rs.1,74,216/- (Demand Draft to be drawn in favour of “TIFR Centre for Interdisciplinary Sciences”, Payable at Hyderabad (To be enclosed with the Technical Bid Part – I))
Tender Fee	Rs.500 (Rupees Five Hundred only)
Last Date & Time of Submission of Tender	27.01.2023 by 13:00 Hrs
Date & Time of Opening of Technical Bid	27.01.2023 at 15:30 Hrs

2. Sale of Tender: Can be purchased from TATA INSTITUTE OF FUNDAMENTAL RESEARCH (TIFR), SERVICE BUILDING 1, SURVEY NO. 36/P, GOPANPALLY JN, POST: GOPANPALLY, HYDERABAD – 500 046, on payment of tender cost in the form of **Demand Draft to be drawn in favour of “ TIFR Centre for Interdisciplinary Sciences”, Payable at Hyderabad (To be enclosed with the Technical Bid part – I).**

The tender documents issued must accompany at the time of submission, proof of the tender cost already paid

3. Submission of Tender & Opening: Tenders shall be submitted in a sealed envelope super scribed with Tender enquiry No., Due Date and with heading as **Vibration Isolation works for Laser Hall Petawatt Building at Plot-B, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500 046**” containing two separate sealed covers clearly super scribed as “TECHNICAL BID” and “FINANCIAL BID” on or before the closing date and time of submission in the following manner:

“TECHNICAL BID”: This will contain the following:

a) Proof of Tender Cost paid already

b) EMD

c) Schedules giving information on Eligibility Criteria specified for tender qualification.

“FINANCIAL BID”: Signed copy of the Financial Bid quoting amount in the stipulated format and signed copies of the tender drawings.

4. Earnest Money Deposit (EMD) : EMD shall be submitted in the form of **Demand Draft to be drawn in favour of “TIFR Centre for Interdisciplinary Sciences”, Payable at Hyderabad (To be enclosed with the Technical Bid Part-I))**

Earnest Money Deposit (EMD): Every Bidder has to pay EMD of amount as specified elsewhere in this tender by Demand Draft in favour of **“TIFR Centre for Interdisciplinary Sciences”** along with the offer or submit valid MSME certificate & declaration for exemption if any. Quotation received without EMD shall be rejected and no correspondence whatsoever will be entertained. For successful bidder the EMD will be adjusted against Performance Guarantee and will be refunded after completion of work /supply of material at site and for unsuccessful bidders EMD will be refunded after placing the order to successful bidder.

5. Performance guarantee/Security Deposit: The tenderer, whose tender is accepted, will be required to furnish a Performance guarantee/Security Deposit of 3% of the tendered amount within 7 (seven) working days from the date of intimation. This guarantee shall be in the form Demand Draft / Pay Order / Banker's cheque / Deposit or Government Securities / Fixed Deposit Receipt (FDR) or Guarantee Bonds (BG) of any Scheduled Bank. In case a fixed deposit receipt of any Bank is furnished by the contractor to TIFR as part of the Performance guarantee/Security Deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to TIFR to make good the deficit.

The Performance guarantee/Security Deposit shall be initially valid up to the stipulated date of completion plus 365 days. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance guarantee/Security Deposit extended to cover such enlarged time for completion of work. The Performance guarantee/Security Deposit shall be returned to the contractor, without any interest, after completion of defect liability period.

The Engineer-in-charge shall make a claim under the Performance guarantee/Security Deposit for amounts to which TIFR entitled under the contract (notwithstanding and / or without prejudice to any other provisions in the contract agreement) in the event of:

a) Failure by the contractor to extend the validity of the Performance guarantee/Security Deposit as described herein above, in which event the Engineer-in-charge may claim the full amount of the Performance guarantee/Security Deposit.

b) Failure by the contractor to pay TIFR, Hyderabad any amount due, either as agreed by the contractor or determined under any of the Clauses / Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-charge.

In the event of the contract being determined under provisions of any of the relevant clauses of the agreement, the Performance guarantee/Security Deposit shall stand forfeited in full and shall be absolutely at the disposal of TIFR, Hyderabad.

In case a fixed deposit receipt of any bank is furnished by the contractor to TIFR, Hyderabad as part of the security deposit/performance guarantee and the bank is unable to make payment

against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to TIFR, Hyderabad to make good the deficit.

All compensation or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit/performance guarantee or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by TIFR or any account whatsoever and in the event of his Security Deposit/performance guarantee being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by scheduled banks (if deposited for more than 12 months) endorsed in favour of the TIFR, HYDERABAD, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof.

Security Deposit/performance guarantee as deducted above can be released against Bank Guarantee issued by a Scheduled Bank on its accumulation to a minimum of Rs.5 Lakhs subject to the condition that amount of such Bank Guarantee, except last one, shall not be less than Rs.5 Lakhs. Bank Guarantee should be submitted which will be valid upto the expiry of defect liability period.

6. Acceptance of Tender: The competent authority, on behalf of TIFR, Hyderabad does not bind itself to accept the lowest or any other tender, and reserves to himself the authority to reject any or all the tenders received, without assignment of any reason. All tenders, in which any of the prescribed conditions is not fulfilled or any condition, including that of conditional rebates, is put forth by the tenderer, shall be summarily rejected.

The Competent Authority, on behalf of TIFR, Hyderabad reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest tender or any other tender.

7. Validity of Tender: The tender for the work shall remain open for acceptance for a period of 75 days from the last date of submission of tenders. If any tenderer withdraws his tender before the said period, or before issue of Letter of Intent, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the Department, then TIFR, Hyderabad shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money absolutely. Further the tenderer shall not be allowed to participate in the retendering process of the work.

8. Levy / Taxes payable by contractor:

- i. GST or any other tax on materials and services in respect of this contract shall be payable by the contractor and TIFR shall not entertain any claim whatsoever in this respect.
- ii. The contractor shall deposit royalty and obtain necessary permit as required for supply of the sand, aggregate, stone etc. from local authorities.

9. Deduction of Income Tax : Applicable as per IT Rules.

10. Site visit by the tenderer before tendering: Tenderers are advised to inspect and examine the site and its surroundings during working hours and satisfy themselves before submitting Contractor's Signature with Stamp

their tenders 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 tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.

11. Signing of Tender and receipts for payments: In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act-1952. Receipts for payments made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

12. Tenderer's responsibilities: The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that they have read this notice & all other contract documents, and has made himself aware of the scope & specifications of the work to be done and local conditions and factors having a bearing on the execution of the work.

13. Signing of contract: The Notice Inviting Tender shall form a part of the contract document. The successful tenderer / contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of: the Notice Inviting Tender, all the documents including all conditions, specifications and drawings, if any, forms the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

14. Canvassing: either directly or indirectly, in connection with the tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection and may be barred from future participation in TIFR works.

UNDERTAKINGBY THE TENDERER

I / We have read and examined the Tender document including terms & conditions, specifications, bill of quantities, drawings and designs, general rules & directions, General Conditions of Contract, Special Conditions of Contract and all relevant other documents, publications and rules referred to in the Conditions of Contract and all other contents in the tender documents for the work.

I / We, hereby tender for execution of the work specified for the TIFR, Hyderabad within the time specified and in accordance in all respects with the specifications, designs, drawings and instructions in writing.

We agree to keep the tender open for **Seventy Five (75) days** from the last date of its submission and not to make any modifications in its terms and conditions. A sum of Rs has been deposited in cash / receipt treasury challan / deposit at call receipt of scheduled bank / fixed deposit receipt of scheduled bank / demand draft of a scheduled bank / Bank Guarantee issued by a Scheduled Bank as earnest money. If I / we, fail to furnish the prescribed Performance guarantee/Security Deposit within prescribed period, I / we agree that the said TIFR, Hyderabad or its authorized officer 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 the TIFR, Hyderabad shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the Performance guarantee/Security Deposit absolutely, otherwise the said earnest money shall be retained by TIFR, Hyderabad towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein.

Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance guarantee/Security Deposit as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

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

Seal & Signature of Contractor
Postal Address

Dated

Witness

Address

Occupation

SECTION-IV**GENERAL INFORMATION****i). Definition of Terms:**

- a) The '**Contract**' means the documents forming the tender and acceptance thereof and the formal agreement executed between the Competent authority on behalf of the TIFR, Hyderabad and the Contractor together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
- b) The expression '**Works**' or '**Work**' shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional.
- c) The '**Site**' shall mean the land or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
- d) The '**Contractor**' shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personnel representative of such individual or the persons composing such firm or company or the successors of such firm or company and the permitted assignees of such individual, firm or company.
- e) The '**Engineer-in-Charge**' means the Engineer / Officer, who shall supervise and be in charge of the work on behalf of TIFR, Hyderabad.
- f) '**Temporary Work**' means all temporary works of every kind required in or about the execution, completion and maintenance of the works.
- g) '**Market Rate**' shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus 15% to cover, all overheads and profits. h) '**TIFR**' means TIFR, Hyderabad.
- h) '**Tendered value**' means the value of the entire work as stipulated in the letter of award.
- i) '**Time Limit**: The time allowed for carrying out the work reckoned from 10th day of the date of issue of work order.

ii). Opening of Tenders: Tenders shall be opened by the authorized committee of TIFR in the Presence of intending bidders or their authorized representatives at the scheduled date and time.

iii.) Declaration by tenderer: The tenderers shall sign a declaration under the Official Secret Act-1923 for maintaining secrecy of the tender documents, drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.

iv.) Filling up of rates: All rates shall be quoted on the tender form by the tenderers in figures and words, and the amount in figures only. All rates shall be quoted on the prescribed tender form. The amount for each item should be worked out and requisite totals given.

- a. The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and considering more than fifty paise as rupee one.
- b. If a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct.
- c. If the amount of an item is not worked out by the tenderer, or it does not correspond with the rate written either in figures or in words, then the rates quoted by the tenderer in words shall be taken as correct.
- d. Where the rate quoted by the tenderer in figures and in words tally but the amount is not worked out correctly, the rate quoted by the tenderer will, unless otherwise proved, be taken as correct and not the amount.
- e. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this / these item(s) in other items and rate for such item(s) will be considered as **zero** and work will be required to be executed accordingly.
- v. Quoted rates to includes all taxes:** GST in respect of this contract shall be payable by the contractor and TIFR will not entertain any claim whatsoever in respect of the same. GST rule will applicable if any with effect from 01.07.2017 as per GST regime. The applicable TDS/ other charges if any as per GST rule will be deducted. TIFR Hyderabad GST no.36AAATT3951F2ZG.
- vi. Action in case of un realistic rates:** In the case of any tender where unit rate of any item (s) appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.
- vii. Contractor to depute his representative at site:** The successful tenderer for the work should have responsible and responsive representative with adequate powers to take speedy decisions during the entire period of execution at the Work place. On acceptance of the tender, the name of the accredited representative(s) of the contractor, who would be responsible for taking instructions from the Engineer-in-Charge, shall be communicated in writing to the Engineer-in-Charge.
- viii. Sufficiency of Tender:** The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Bill of Quantities, at which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.
- ix. Signing of Contract:** The successful tenderer / contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of complete tender document including conditions, bill of quantities, drawings, if any, and acceptance thereof together with any correspondence leading thereto along with DAE Safety Code and Model Rules for the protection of health, sanitary arrangements for workers employed by DAE or its contractors, DAE Contractor's Labour Regulations, List of Acts and omissions for which fines can be imposed. No payment for the work done will be made unless contract is signed by the contractor.

SECTION-V**GENERAL CONDITIONS**

1. Compensation for delay: If the contractor fails to maintain the required progress in terms of contract or to complete the work and clear the site on or before the stipulated or extended date of completion, he shall, without prejudice to any other right or remedy available under the Law to the Govt. on account of such breach, pay as agreed compensation the amount calculated at **1.5% per month of delay to be computed on per day basis** on the amount of tendered value of the work for every completed day / month (as applicable) that the progress remains below that specified or that the work remains incomplete. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the tendered value of work or of the tendered value of the item or group of items of work for which a separate period of completion is originally given.

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

i. IF the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman-like manner shall omit to comply with the requirements of such notice for a period of 7 days thereafter.

ii. If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continue to do so after a notice in writing of 7 days from the Engineer-i

iii. If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.

iv. If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.

v. If the contractor shall offer or give or agree to give to any person in TIFR or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for TIFR.

vi. If the contractor shall obtain a contract elsewhere as a result of wrong tendering or other non-bonafide methods of competitive tendering.

vii. If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting)

or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge.

viii. If the work is not started by the contractor within 1 / 8th of the stipulated time.

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

a) To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance guarantee/Security Deposit under the contract, shall be liable to be forfeited, and shall be absolutely at the disposal of TIFR, Hyderabad.

b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be unexecuted out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work

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

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

4. Time Extension for delay: The time allowed for execution of the works as stipulated in the contract or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in contract. If the Contractor commits default in commencing the execution of the work as aforesaid, TIFR shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & Performance guarantee/Security Deposit absolutely.

As soon as possible after the Contract is signed, the Contractor shall submit a Time and Progress Chart for each mile stone and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) to complete the work as per the mile stones given.

If the work(s) be delayed by:

- i. Force majeure, or
 - ii. Abnormally bad weather, or
 - iii. Serious loss or damage by fire, or
 - iv. Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
 - v. Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
 - vi. Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control, then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.
- Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within 14 days of the happening of the event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired. In any such case the **Engineer-in-Charge** may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.

5. Measurements of work done: Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done. All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract. All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect

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

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.

The contractor shall give, not less than 7 days' notice to the Engineer-in-Charge or his authorized representative in-charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels. It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

6. Completion Certificate: Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in- Charge and within fifteen days of the receipt of such notice, the Engineer-in- Charge shall inspect the work, and if there is no defect in the work, shall furnish the contractor with a certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and / or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed, all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements, required for his/their work people on the site in connection with the execution of the works as shall have been erected or

Contractor's Signature with Stamp

constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floors or other parts the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of the work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish, etc., and dispose off the same as he thinks fit and clean off such dirt as aforesaid; and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

7. Contractor to keep site clean: When the annual repair and maintenance of works are carried out, the splashes and droppings from white washing, colour washing, painting etc. on wall, floors, doors, windows etc. shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done without waiting for the actual completion of all the other items of work in contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-Charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-Charge shall give **10 days'** notice in writing to the contractor.

8. Completion plans to be submitted by the contractor: The contractor shall submit completion plan required as per Specifications for Vibration Isolation work for Laser Hall Petawatt Building as applicable within 7 days of the completion of the work. In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.50% of the value of the work subject to a ceiling of Rs.15,000/- as may be fixed by the Engineer-in-Charge and in this respect the decision of the Engineer-in-Charge shall be final and binding on the contractor.

9. Payment of Running & Final Bill: The contractor will be paid 3 Running Account (RA) Bills and Final Bill considering the progress of works based on measurement of works completed. The contractor shall submit the bills for payments along with detailed statement showing the actual works carried out under different heads of items in the format specified by TIFR-, Hyderabad. Minimum value of the work for interim payment shall be Rs.25,00,000/-.

BILL FORMAT

Tender No.	Description of Items (least 2 lines)	Unit	Tender Quantity	Executed Quantity	Rate	% work done	Amount

NOTE: All quantities in the bill should be in cumulative.

All measurements should be in the order of tender sequence and should be recorded in the measurement book.

The Measurement should be strictly in the below mentioned format only.

MEASUREMENT FORMAT

Tender No.	Description of Item & Location against Measurement taken	Nos.	Length	Breadth/width	Height	Qty.	Remarks

The works which have been certified for running bills will also be verified along with the final bill and any defects found need to be replaced / rectified by the contractor at his cost. Till the time, the site is handed over in full, it is the contractor's liability to safeguard the works done and completed at site. The Progress of work should not be affected in any way quoting the reason of non-availability of funds / materials / releasing of running bill. The liability of contractor is to complete all works in his scope in the scheduled time as per the terms of contract and will not relieve the contractors from his obligations once the Running bill is paid / kept pending.

The Security Deposit, shall be refunded on expiry of the Defects Liability Period after rectifying all defects to the satisfaction of the TIFR-Hyderabad/E.I.C. The acceptance of payment of the final bill by the Contractor would indicate that he would have no further claim in respect of the work executed.

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

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

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer- in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in- Charge or his authorized representative shall at all times have access to the works and to all workshops and places where

work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

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

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

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

12. Work to be executed in accordance with specifications, drawings, orders, etc. : The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge. The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale.

The following order of preference shall be observed:

- a) Description of Bill of Quantities.
- b) Particular Specifications and Special Clauses, if any.
- c) Drawings.
- d) Department of Atomic Energy Specifications
- e) C.P.W.D. Specifications.
- f) Indian Standard Specifications of B.I.S.
- g) Manufacturer's specifications

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

Contractor shall be required to submit a guarantee bond for all the water proofing works carried out by him as per Annexure- I. Contractor shall use the items of approved makes as per Annexure-II.

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

A. Deviation and Time Extension: The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, will be extended, if requested by the contractor, as follows:

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

B. Extra Items and Pricing: In the case of extra item(s) which cannot be determined under Part-B of the schedule of quantities, the contractor may within fifteen days of receipt of order or occurrence of the item(s), claim rates, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

In the case of substituted items, the rate for the agreement items (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para:

C Substituted Items and Pricing:

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

D. Deviated Quantities, Pricing: In the case of contract items, substituted items, contract cum substituted items, which exceed the limits of 30% for building work, 100% for foundation work and 50% for maintenance work, the contractor may within **15 days** of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work

in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the aforesaid limits, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within **15 days** of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of **15 days** having regard to the market rates.

Any operation incidental to or necessarily has to be in contemplation of tenderer while filing tender, or necessary for proper execution of the item included in the Bill of Quantities mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer. Nothing extra shall be admissible for such operations.

14. Foreclosure of contract due to abandonment or reduction in scope of work: If at any time after acceptance of the tender, TIFR, Hyderabad shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in-charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

15. Suspension of work:

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

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

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

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

a. the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;

b. If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may

consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days.

iii. If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in Sub-Para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by TIFR or where it affects whole of the works, as an abandonment of the works by TIFR, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by TIFR, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer- in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within 30 days of the expiry of the period of 3 months.

16. Action in case of work not done as per specifications: All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in- charge, his authorized subordinates in charge of the work and all the superior officers of the Department or any organization engaged by the Department for Quality Assurance and of the Chief Technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

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

same rate as under clause III(1) of the contract (for non-completion of the work in time) for this default In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

17. Contractor liable for damages, defects during Maintenance (Defect Liability Period): If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within **12 months (6 months** in the case of work costing **Rs. 10,00,000/- and below** except road work) after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defective or improper materials or workmanship, the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense, or in default, the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due, or at any time thereafter may become due to the contractor, or from his security deposit, or the proceed of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of **12 months (6 months** in the case of work costing **Rs.10,00,000/- and below** except road work) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work, if in the opinion of the Engineer-in-Charge, half of the security deposit is sufficient to meet all the liabilities of the contractor under this contract, half of the security deposit will be refundable after **6 months** and the remaining half after **12 months** of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later. Performance Security shall be refunded to the contractor after completion of the work and recording the completion certificate.

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

19. Recovery of compensation paid to workmen : In every case in which by virtue of the provisions of section 12 sub-section (1) of the Workmen's Compensation Act. 1923, TIFR is

obliged to pay compensation to a workman employed by the contractor, in execution of the works, TIFR will recover from the contractor the amount of the compensation so paid; and, without prejudice to the rights of TIFR under Section 12, sub-section (2) of the said Act, TIFR shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by TIFR to the contractor whether under this contract or otherwise. TIFR shall not be bound to contest any claim made against it under section 12, sub-section (1) of the said Act, except on the written request of the contractor and upon his giving to TIFR full security for all costs for which TIFR might become liable in consequence of contesting such claim.

20. Ensuring payment and amenities to workers if contractor fails: In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and of the contract labour (Regulation and Abolition) Central Rules, 1971, TIFR is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the Rules, under Clause 19 H or under the DAE Contractor's Labour Regulations, or under the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by Department of Atomic Energy contractors, TIFR will recover from the contractor the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of TIFR under Section 20, sub-section (2) and Section 21, sub-section (4) of the contract labour (Regulation and Abolition) Act, 1970, TIFR shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by TIFR to the contractor whether under this agreement or otherwise. TIFR shall not be bound to contest any claim made against it under Section 20, subsection (1) and section 21, sub-section (4) of the said Act, except on the written request of the contractor and upon his giving to TIFR full security for all costs for which TIFR might become liable in contesting such claim.

21. Labour laws to be complied by the contractor: The contractor shall obtain a valid license under the Contract Labour (R & A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provision of the Child Labour Prohibition & Regulation) Act-1998. The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment& Conditions of Service) Act, 1996 and the building and other Construction

Workers Welfare Cess Act, 1996. Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non execution of the work.

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

23. Settlement of Disputes & Arbitration: Any dispute arising from this contract will be referred to two arbitrators one to be appointed by you and one by us. The two arbitrators, in the event of their disagreement will appoint an Umpire. The decision of the Umpire shall be final and binding. The arbitration will proceed as per Indian Arbitration Act, 1940, as amended up to date.

24. Confidential Information : The drawings, specifications, proto-type, samples and such other information furnished to the contractor relating to the supply / work, sub-systems / equipment etc. are to be treated as confidential which shall be held by the contractor in confidence and shall not be divulged to any third party without the prior written consent of the Department.

The contractor, therefore, binds himself, his successors, heirs, executors, administrators, employees and the permitted assignees or such other persons or agents directly or indirectly concerned with the work / supply to the confidential nature of the drawings, specifications, prototype samples etc. It is a further condition of the contract that the contractor shall not, without prior written permission from the Department, transmit, transfer, exchange, gift or communicate any such confidential information, and also the component, sub assembly, products, by-products etc. pursuant to the fabrication under taken by the contractor, to any third party.

25. Safety with Scaffolding and Mobile Elevated Platform: Every scaffold or mobile elevated platform and its supporting members, railings, Tee-boards, ropes should be designed to support given load, with a safety factor of at least four. No alterations should be made that might impair the strength of such structures, no improvised, make-shift or substandard scaffold should be permitted even for the most temporary use. All work in connection with such structures, including construction, operation, maintenance, alteration and removal should be carefully done under the direction and supervision of persons with specialized experience in such works. A safe and convenient means of access should be provided to the platform or scaffold. Means of access may be a portable ladder, fixed ladder, ramp or it may be a stairway. The use of cross braces or frame work as means of access to the working surface should not be permitted.

26. The TIFR-Hyderabad shall not be responsible for any accident/injury or loss of life of any of the persons engaged by the contractor that may take place while executing the contract. Any compensation or expenditure towards the treatment of such injury or loss of life shall be sole responsibility of the contractor. **At his cost, the contractor shall obtain appropriate/adequate insurance policy to his personnel towards meeting the liability of compensation arising out of death, injury, disablement, etc. at work.**

SECTION – VI	SPECIAL CONDITIONS OF CONTRACT
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I GENERAL

1. Special Conditions of Contract (SCC) shall be read in conjunction with the General Conditions of Contract (GCC) also referred to as General Terms & Conditions of Works Contract, Schedule of Quantities, specifications of work, drawings and any other document forming part of this Contract wherever the context so requires.
2. Notwithstanding the sub-division of the document into these separate sections and volumes, every part of each shall be deemed to be supplementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so.
3. Where any portion of the GCC is repugnant to or at variance with any provisions of the Special Conditions of Contract, then unless a different intention appears, the provision(s) of the Special Conditions of Contract shall be deemed to override the provision(s) of GCC only to the extent that such repugnancy or variations in the Special Conditions of Contract are not possible of being reconciled with the provisions of GCC.
4. Wherever it is stated in this Bidding Document that such and such a supply is to be affected or such and such a work is to be carried out, it shall be understood that the same shall be affected and /or carried out by the Contractor at his own cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context. Contract Price shall be deemed to have included such cost.
5. The materials, design & workmanship shall satisfy the applicable relevant Indian Standards, the job specifications contained herein & codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied. In the absence of any Standard / Specifications / Codes of practice for detailed specifications covering any part of the work covered in this bidding document, the instructions / directions of Engineer-in-Charge will be binding upon the Contractor.
6. In case of contradiction between relevant Indian standards, GCC, Special Conditions of Contract, Specifications, Drawings and Schedule of Rates, the following shall prevail in order of precedence.
 - a) Detailed Purchase Order along with statement of agreed variations, if any, and its enclosures.
 - b) Letter of Intent(LOI)
 - c) Schedule of Quantities
 - d) Special Conditions of Contract
 - e) Instructions to Bidders
 - f) General Conditions of Contract
 - g) Technical Specifications
 - h) Relevant Indian Standards.
 - i) Drawings/ Data Sheets

II. THE WORK**1. Scope of Work & Scope of Supply**

The scope of work covered in this Contract will be as described in scope & objective of work provided in Section-I of important information to bidders, Schedule of Quantities, Technical Specifications, Drawings, etc.

Contractor's Signature with Stamp

2. Time Schedule

The Completion period for this job shall be as given in this bid document. Time is the essence of this Contract. The period of completion given includes the time required for mobilization as well as testing, rectifications, if any, retesting, demobilization and completion in all respects to the satisfaction of the Engineer-in-Charge.

A joint programme of execution of work will be prepared by the Engineer-in-Charge and Contractor. This programme will take into account the time of completion period of the Contract.

Monthly execution programme will be drawn up by the Engineer-in- Charge jointly with the Contractor based on availability of materials, work fronts and the joint programme of execution as referred to above. The Contractor shall scrupulously adhere to the Targets / Programme by deploying adequate personnel, Construction Equipment, Tools and Tackles and also by Timely Supply of required materials coming within his scope of supply as per Contract. In all matters concerning the extent of target set out in the monthly programme and the degree of achievement, the decision of the Engineer-in-Charge will be final and binding upon the Contractor.

Contractor shall give every day category-wise labour and equipment deployment report along with the progress of work done on previous day in the pro-forma prescribed by the Engineer- in-Charge.

3. Temporary Works

All temporary works, enabling works, including dewatering of surface and subsoil water, preparation and maintenance of temporary drains at the work site, preparation and maintenance of approaches to working areas, adequate lighting, wherever required, for execution of the work, shall be the responsibility of the Contractor and all costs towards the same shall be deemed to have been included in the quoted prices.

4. Quality Assurance

Detailed quality assurance program to be followed for the execution of Contract under various divisions of works will be mutually discussed and agreed to.

The Contractor shall establish, document and maintain an effective quality assurance system as outlined in the specifications and various codes and standards.

The Owner/Consultant or their representative shall reserve the right to inspect/witness, review any or all stages of work at shop/site as deemed necessary for quality assurance and / or timely completion of the work.

In case Contractor fails to follow the instructions of Engineer-in- Charge with respect to above clauses, next payment due to him shall not be released unless and until he complies with the instructions to the full satisfaction of Engineer-in-Charge.

5. Labour License

Before starting of work, Contractor shall obtain a license from concerned authorities under the Contract Labour (Abolition and Regulation) Act 1970, and furnish copy of the same to Owner.

6. Labour Relations

In case of labour unrest/labour dispute arising out of non-implementation of any law, the responsibility shall solely lie with the Contractor and they shall remove/resolve the same satisfactorily at his cost and risk.

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his staff and labour and to preserve peace and protection of persons and property in the neighborhood of the Works against such conduct.

7. Site Cleaning

The Contractor shall clean and keep clean the work site from time to time to the satisfaction of the Engineer-in-Charge for easy access to work site and to ensure safe passage, movement and working.

The Contractor shall dispose off the unserviceable materials, debris etc., to the earmarked area within the premises or any other location outside the premises as per the Contract and/or as decided by the Engineer-in-Charge. No extra payment shall be paid on this account.

8. Review/Approval of Drawings, Design and other documents submitted by Contractor

TIFR, HYDERABAD/Consultant will normally require and utilize a maximum time frame of seven (07) working days from the date of Receipt for Review/Approval of Drawings and other documents submitted by Contractor. Upon Review of the submitted documents, TIFR, HYDERABAD may give their comments and ask for modification/resubmission after necessary rectifications/modifications and the time frame of 7 working days will be applicable for same.

9. Protection of Existing Facilities

Contractor shall obtain all clearance (work permit) from the Owner, as may be required from time to time, prior to start of work. Work without permit shall not be carried out within the existing premises.

Contractor shall obtain plans and full details of all existing and planned facilities/services/utilities from the Owner and shall follow these plans closely at all times during the performance of work. Contractor shall be responsible for location and protection of all facilities/utilities and structures at his own cost.

Despite all precautions, should any damage to any structure / utility etc. occur, the Contractor shall contact the Owner / authority concerned and Contractor shall forthwith carry out repair at his expenses under the direction and to the satisfaction of Engineer-in- Charge and the Owner/concerned authority. Contractor shall take all precautions to ensure that no damage is caused to the existing facilities etc., during construction. Existing structures/ facilities/ utilities damaged / disturbed during construction shall be repaired and restored to their original condition by Contractor after completion of construction to the complete satisfaction of Owner.

10. Work Front

The work involved under this Contract may include such works as have to be taken up and completed after other agencies have completed their jobs. The Contractor will be required and bound to take up as and when the fronts are available for the same and no claim of any sort whatsoever shall be admissible to the Contractor on this account. Only extension of time limit shall be admissible, if the availabilities of work fronts to the Contractor are delayed due to any reason not attributable to the Contractor and the same is clearly recorded.

11. Site Facilities

The Contractor shall arrange for the following facilities at site, for workmen deployed/engaged by him / his sub- contractor, at his own cost:

- a) Arrangement for First Aid.
- b) Arrangement for clean & potable drinking water.
- c) Contractor's Site Office and Stores

Contractor's Signature with Stamp

Owner shall provide land only for contractor's site office and stores and fabrication yard, if any at site. However, same shall be dismantled prior to submission of Final Bill.

The Contractor shall remove all temporary buildings / facilities etc., before leaving the site after completion of works in all respect.

12. Construction Power and Water

TIFR shall provide metered and chargeable power at a single point and the Contractor shall be exclusively responsible for the safety and to make his own arrangements for supply of power as per required.

Water required for the works shall be provided by TIFR depending upon the availability for free of cost. If not, the contractor has to make own necessary arrangement at own cost for drawing water including making temporary storage, pumping etc. TIFR will not pay any extra charges.

13. Cement & Steel :

Cement required for execution of the job under the scope of this tender shall be supplied by the contractor at his own cost. Cement used shall be 53 grade Ordinary Portland cement (OPC) for all concrete works and 43 Grade Ordinary Portland cement (OPC) for other works. In case 43 grades OPC is not available, Portland Slag Cement or Portland Pozzolanic Cement may be permitted by TIFR, HYDERABAD after review of the same. Contractor to include the cost of cement required for execution of various items included in this tender in their quoted rates. Cement shall be of Grade as specified in the SOQ and shall conform to relevant BIS standards of latest edition.

The contractor will be required to maintain a stock register for receipt, issuance and daily consumption of cement at site. Cement shall be regulated on the basis of 1st receipt to go as 1st issue. Cement not consumed within 3 months after bringing to site shall not be used and shall be removed from site with prior written permission of EIC.

Contractor shall construct suitable temporary godown at site for storage of cement under his lock and key. The contractor will be fully responsible for safe custody of cement.

TIFR, HYDERABAD will not entertain any claims by the Contractor for theft, loss or damages to cement. Contractor shall not remove from the site any cement bags at any time.

Entire quantity of reinforcement steel required for the project shall be supplied and provided at site by the contractor at his own cost. TIFR, HYDERABAD shall not supply any reinforcement steel. The contractor shall make necessary arrangement at his own cost for unloading, storage of steel in the open duly fenced under locking arrangement. The Contractor shall produce invoice for the reinforcement steel to EIC for every batch of procurement along with Manufacturer's Test Certificate.

No payment will be made or measurement recorded for binding wires which shall be of specified gauge and shall be provided by the contractor. All binding wires required for tying the reinforcement in position etc. will be supplied by the contractor. Cost of this binding wire and labour will be included in the item for binding and placing reinforcement in position.

It will be necessary that the contractor get the cement and steel tested at his own cost at TIFR, HYDERABAD approved laboratory as per the testing schedule or as per the EIC's advise.

The contractor will be required to maintain a register for recording details of steel receipt, steel utilized and balance at site.

In every case, it shall be the contractor's responsibility to ensure the standard of quality and the correctness of quantity of steel procured at site by him.

14. Rules and Regulations

Contractor shall observe in addition to Codes specified in respective specification, all national and local laws, ordinances, rules and regulations and requirements pertaining to the work and shall be responsible for compliance to the same.

15. Procedures

Various procedures and method statements to be adopted by Contractor during the construction as required & sought by TIFR, HYDERABAD and as per the respective specifications shall be submitted to Engineer-in-Charge in due time for approval.

16. Security

As the premises at TIFR, HYDERABAD is a protected area, entry into the area shall be restricted and may be governed by issue of photo gate passes. The Contractor shall arrange to obtain through the Engineer-in-Charge, well in advance, all necessary entry permits/gate passes for his staffs and laborers and entry and exit of his men and materials shall be subject to vigorous checking by the security staff. The Contractor shall not be eligible for any claim or extension of time whatsoever on this account.

It shall be the responsibility of the contractor to safeguard all his materials/owned from theft, damage etc. For this purpose the contractor shall be allowed to keep his own security inside TIFR, HYDERABAD premises.

17. Drawings and Documents

Drawings accompanying the Bidding Document are indicative of scope of work and issued for bidding purpose only. Purpose of these drawings is to enable the bidder to make an offer in line with the requirements of the owner.

The contractor as per 'scope of work' shall submit detailed designs including calculations, shop drawings, joinery details etc by a Govt. approved/ licensed Structural Engineer confirming structural stability which will be examined and approved by the Engineer-In-Charge with deviations if required before taking up the work.

18. Contractor's Billing System

TIFR, HYDERABAD will provide an approved format for Measurement sheets, Bill Summary and Bill Abstract. Contractor has to ensure that these data are updated for each subsequent RA and Final Bill.

TIFR, HYDERABAD will utilize these data for processing and verification of the Contractor's bill. Contractor's RA Bills shall be accompanied by progress photographs.

19. Site Organization

The Contractor shall without prejudice to his overall responsibility to execute and complete the works as per specifications and time schedule progressively deploy adequate qualified and experienced personnel together with skilled / unskilled manpower and augment the same as decided by Engineer-in-Charge depending on the exigencies of work to suit the construction schedule without any additional cost to Owner.

The Contractor shall provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer-in-Charge may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract Such superintendence shall be given by

sufficient persons having adequate knowledge of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents) for the satisfactory and safe execution of the Work. The workmen deployed by the Contractor should also possess the necessary license etc., if required under the existing laws, rules and regulations.

20. Responsibility of Contractor

It shall be the responsibility of the contractor to obtain the approval for any revision and/or modifications decided by the contractor from the Owner / Engineer-in-Charge before implementation. Also such revisions and / or modifications if accepted / approved by the Owner / Engineer-in-Charge shall be carried out at no extra cost to the owner. Any change required during functional requirements or for efficient running of system, keeping the basic parameters unchanged and which has not been indicated by the contractor in the data / drawings furnished along with the offer shall be carried out by the contractor at no extra cost to the owner.

All expenses towards mobilization at site and demobilization including bringing in equipment, work force, materials, dismantling the equipment, clearing the site etc. shall be deemed to be included in the prices quoted and no separate payments on account of such expenses shall be entertained.

It shall be entirely the contractor's responsibility to provide, operate and maintain all necessary construction equipment, steel scaffoldings and safety gadgets, cranes and other lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all the jobs as per time schedule.

Preparing approaches and working area for the movement of his men and machinery.

The procurement and supply in sequences and at the appropriate time of all materials, and consumables shall be entirely the contractor's responsibility and his rates for execution of work will be inclusive of supply of all these items.

21. Coordination with other agencies

Contractor shall be responsible for proper coordination with other agencies operating at the site of work so that work may be carried out concurrently, without any hindrance to others. The Engineer – in – Charge shall resolve disputes, if any, in this regard, and his decision shall be final and binding on the Contractor.

22. Underground and overhead structures

The Contractor will familiarize himself with and obtain information and details from the Owner in respect of all existing structures, and utilities existing at the job site before commencing work. The Contractor shall execute the work in such a manner that the said structures, utilities, etc. are not disturbed or damaged, and shall indemnify and keep indemnified the Owner from and against any destruction thereof or damages thereto.

23. Documents required with final bill

Statement of final bills – issue of No Claim/ No Due Certificate

The Contractor shall furnish a No-Claim/No-Due declaration indicating that there are no balance dues to his sub-vendor/sub- contractors /labour contractors along with the Final Bill.

24. Working hours

The work shall be carried out if required on round-the clock basis including holidays as it is a Greenfield site. Contractor's quoted rates are deemed to include expenditure towards working on

round-the clock basis and holidays. However, Contractor's representative shall be available for overseeing the works at all times.

III. TESTS, INSPECTION AND COMPLETION

1. Tests and Inspection

The Contractor shall carry out the various tests as enumerated in the technical specifications of this Bidding Document and technical documents that will be furnished to him during the performance of the work at no extra cost to the Owner.

All the tests either on the field or at outside laboratories concerning the execution of the work and supply of materials by the Contractor shall be carried out by Contractor at his cost.

The work is subject to inspection at all times by the Engineer-in- Charge. The Contractor shall carry out all instructions given during inspection and shall ensure that the work is being carried out according to the technical specifications of this bidding document, the technical documents that will be furnished to him during performance of work and the relevant codes of practice.

All results of inspection and tests will be recorded in the inspection reports, pro-forma of which will be approved by the Engineer-in- Charge. These reports shall form part of the completion documents. Any work not conforming to execution drawings, specifications or codes shall be rejected and the Contractor shall carry out the rectifications at his own cost.

2. Final Inspection

After completion of all tests as per specification the whole work will be subject to a final inspection to ensure that job has been completed as per requirement. If any defect is noticed, the Contractor will be notified by the Engineer-in-Charge and he shall make good the defects with utmost speed. If, however, the Contractor fails to attend to these defects within a reasonable time (time period shall be fixed by the Engineer-in-Charge) then Engineer-in-Charge may have defects rectified at Contractor's cost by engaging a third party.

3. Inspection of Items

All inspection and tests on the items shall be made as required by specifications forming part of this contract. Various stages of inspection and testing shall be identified after receipt of Quality Assurance Program from the contractor / manufacturer. All incoming materials shall be accompanied by a IMIR (Incoming Material Inspection Report)

Inspection calls shall be given for association of Owner, as per mutually agreed program in prescribed pro-forma, giving details of item and attaching relevant test certificates and internal inspection report of the contractor.

The contractor shall ensure full and free access to the inspection engineer of Owner at the contractor's premises at any time during contract period to facilitate him to carry out inspection and testing assignments.

The contractor shall provide all instruments, tools, necessary testing and other inspection facilities to inspection engineer of Owner free of cost for carrying out inspection.

Where facilities for testing do not exist in the contractor's laboratories, samples and test pieces shall be drawn by the contractor in presence of Inspection Engineer of Owner and duly sealed by TIFR, HYDERABAD engineer and sent for tests in TIFR, HYDERABAD approved lab at the contractor's cost.

The contractor shall comply with the instructions of the Inspection Engineer fully and with promptitude. All inspections and tests shall be made as required by the specifications forming part of this contract. All costs towards testing etc. shall be borne by the contractor within their quoted rates.

4. Documentation

Upon completion of work, the Contractor shall complete all drawings to “As built” status (including all vendor / Sub – vendor's drawings for bought out items) and provide the Owner, the following:

5. Supervisory Personnel

Qualification and experience of key supervisory construction personnel to be deployed for this works shall be as given hereunder. CONTRACTOR shall submit bio data of key supervisory personnel meeting the requirement as given hereunder, after award, which will be reviewed and approved by Engineer-in- charge. However, deployment of qualified and experienced supervisory personnel of the CONTRACTOR shall be commensurate with the project work load and as approved by Engineer-in-Charge and / or OWNER .

Designation/ Category	Minimum Qualification	No. of Personnel	Discipline to which should belong
RESIDENTCONSTRUCTION MANAGER / RESIDENT ENGINEER / SITE-IN- CHARGE	Minimum Diploma with relevant field experience of minimum 5 years	1	Civil

SECTION-VII**TECHNICAL CONDITIONS & SPECIFICATIONS****TECHNICAL SPECIFICATIONS FOR CIVIL WORKS****1.0 GENERAL****1.1 SCOPE**

These specifications establish and define the materials and constructional requirements for civilengineering construction works in brief.

1.2 EQUIVALENCY OF STANDARDS AND CODES, MEASUREMENTS & MATERIALS

- 1.2.1 Wherever reference is made in the contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the contract. In case, no reference is made for any particular work, relevant IS /BIS Codes will be followed.
- 1.2.2 Providing and operating necessary measuring and testing devices and materials including all consumables are included in the Scope of Work. No separate measurement or payment for testing the work shall be made but rates quoted for various items shall be deemed to include cost of such tests, which are required to ensure achievement of specified quality.
- 1.2.3 All materials shall be of standard quality, manufactured by renowned concerns, conforming to Indian Standards and shall have certification work from Bureau of Indian Standards as far as possible, unless otherwise approved by Engineer. The contractor shall get all materials approved by Engineer prior to procurement and use. The contractor shall furnish manufacturer's certificates, for materials supplied by him when asked for. Further to that he shall get materials tested from an approved Test House, if asked for by the Engineer. The cost for all the tests and test certificates shall be borne by the contractor. No separate payment shall be made for the testing. The Engineer shall have the right to determine whether all or any of the materials are suitable. Any materials procured or brought to site and not conforming to specifications and satisfaction of the Engineer shall be rejected and the contractor shall have to remove the same immediately from site at his own expense and without any claim for compensation due to such rejection.
- 1.2.4 All goods and materials to be incorporated in the works shall be new, unused, of the most recent or current models and incorporate all recent improvements in design and materials, unless provided otherwise in the contract.
- 1.2.5 Wherever referred to in this tender document, only the latest revision of Specifications, Codes of Practice and other publications of the Indian Standards shall be applicable.

2.0 WORK SPECIFICATIONS

The works will be executed, as indicated in the nomenclature of each items, Bill of Quantities, Drawings, Specification and Terms and Conditions read in conjunction with those given in this Contract.

2.1 Site Clearance:

Before the earthwork is started, the area coming under cutting and filling shall be cleared of shrubs, rank vegetation, grass, brushwood, trees and sapling of girth up to **30cm.** measured at a height of onemeter above ground level and rubbish removed outside boundary. The roots of trees and saplings shall be removed to a depth of **60 cm.** below ground level or 30 cm below formation level or **15cm** below sub-grade level whichever is lower and holes or hollows filled up with the earth, rammed or leveled. Payment of this item of site clearance will be made as per relevant item in BOQ.

2.2 Concrete work

All mixed design concrete shall be executed by Concrete Batch Mix Plant of suitable capacity. The vendor has to take prior approval of RMC from the engineer in charge. **No extra payment shall be allowed on account of Concrete from batch mix plant or RMC.**

If at any stage of the work, during or after placing the concrete in the structure the work is found defective such concrete shall be removed and work be done with fresh concrete and adequate rigid forms at the cost of the contractor. The contractor shall be liable to bear the cost for the cement concrete thus dismantled.

The construction work shall be done with proper and assured system of curing duly identified areas with dates marked in paint. In hot weather the contractor shall take relevant care to cover the work with wet gunny bags/hessian cloth or use continuous ponding of water on surface so as to keep the surface wet.

2.3 Fine Aggregates

Coarse sand of approved quality conforming to relevant IS code shall be used as fine aggregate. Forcement concrete, reinforced cement concrete and concrete of any other type, sand / quarries dust shall be cleaned and absolutely free from dirt and no other deleterious material shall be permitted.

Samples of sand to be used shall be approved by Engineer-in-charge or his authorized representative.

The sand used in various items of work shall generally conform to the CPWD specifications for works 2009 Volume-I with up to date correction slips.

The sand to be used in brick masonry, concrete and R.C.C. shall have a fineness modulus of not less than 2.5 except for items otherwise specified in schedule of quantities and CPWD specifications and shall be obtained from nearest approved quarry and the material to be in conformity with the CPWD specifications.

The sand used in items where use of 'Fine Sand' is mentioned in schedule of quantities and in all items under 'Finishing' (shall have a fineness modulus of not less than 1.0) and shall be obtained from nearest approved quarry.

2.4 Coarse Aggregate

The coarse aggregate which may be either stone ballast or stone chips as directed, should be well graded and preferably machine broken and should conform to CPWD Specifications and /or relevant IS code and should be obtained from approved quarries. The stone should be free from soft thin elongated or laminated or decayed particles. The aggregates should be free from dust. Cleaning and washing, if necessary, should be carried out as per the direction of the Engineer or his authorized representative.

The mention of any sources does not, however, absolve the contractor's for his / their liability to ensure that the coarse sand, stone chips and ballast as may be required for the work strictly in accordance with Standard Specification .In case, these materials cannot be had according to specification, from these sources the contractor may bring the materials from any other sources by obtaining prior permission of the Engineer – in- charge, provided materials are according to standards specifications.

In addition to the routine tests, special tests on materials will be carried out whenever required by the Engineer. The cost of the special test done will be borne by the contractor. Necessary facilities in the form of moulds, cones, scales materials, labour for casting, curing, specimen and such other facilities as pre –requisite to any standard concrete tests will in any case be afforded by the contractor free of cost.

2.5 Form work and shuttering

For cement concrete in slabs, columns, beams, chajjas, etc, the contractor should use water proof plywood / steel shuttering plate sets as per the drawing. The steel plate should have smooth surface and should be free of bulge during the concreting. The entire shuttering should be water proof and conform to relevant IS Code. If however, the contractor wants to use wooden shuttering, he will have to use new planks and scanting, for fabrication of such shuttering so as to ensure smooth and leak proof surface.

2.6 Reinforcement

Binding wire of approved quality shall be arranged by the contractor himself and the rates quoted for RCC work will include cost of binding wire and the process, of binding etc. All works shall be done strictly in accordance with the approved drawings and no departure shall be made by the contractor without the order of the Engineer in writing.

2.7 Mass Concrete Temperature Control Method:

To keep the temperature difference between concrete core and concrete surface $< 20^{\circ}\text{C}$, and to keep maximum concrete temperature $< 25^{\circ}\text{C}$, necessary steps are needed. Where in this work is divided into 2 steps namely precooling and post cooling.

2.8 Mixed design with a mixture of fly ash and cold water (Precooling):

Use mix design with the following mixture so that the initial temperature of the concrete can be lowered. Mix design for M25:

Water Cement Ratio	: 0.43
Cement	: 250 kg
Fly Ash	: 80 kg (30%)
Sand	: 839 kg
Gravel	: 1109 kg
Water	: 150 kg
Water temperature (used ice water)	: 7 °C
Slump	: 10 ± 2 cm
Admixture: Type D: 0.72 kg, Type F	: 4.1 kg

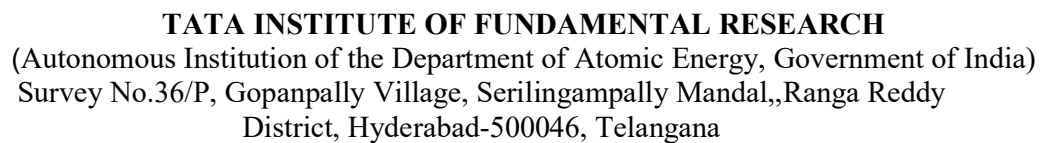
Note: The contractor has to submit the mix design after vetting from JNTU or equivalent university.

2.9 Surface Insulation (Post Cooling):

Surface insulation is performed as soon as the concrete surface hardened (1.5 hours of concrete pour time). Surface insulation is done by covering the surface area of concrete with a layer of plastic, 2 cm Styrofoam or wet sand with a thickness of 20 cm. Surface insulation is performed for 14 days, or after concrete temperature difference < 20 ° C. After surface insulation is removed, proceed with curing using water or wetted cloth.

List of Approved Makes

S. Nr.	Name of Material	Make
	Civil Items	
1 (a)	Cement (Portland Pozzolana Cement)	ACC, Ultra Tech., J. P. Rewa, Vikram, Sri Cement, Lafarge cement, Mycem cement, Birla cements, Prism Cement, Ambuja Cement& Cement Corporation of India etc.
1 (b)	Cement (Ordinary PortlandCement)	Gujarat Ambuja, ACC, JK, Vikram Shree, Ultratech,Birla Uttam, Binani, Lafarge, Madras Cement (Ramco), India Cement, Jaypee, J.K Laxmi, Dalmia
2	Reinforcement Steel	TATA, SAIL, RINI, JINDAL or any BIS approved Licence holder/ manufacturer



NAME OF WORK.....

S.NO.	REMAKRS OF THE INSPECTING OFFICER OR CONTRACTOR	ACTON TAKEN AND BY WHOM	REMARKS
1	2	3	4



HINDRANCE REGISTER

S.No.	Nature Of Hindrance	Items Of Work That Could NotBe Executed Due To This Hindrance	Date Of Start Of Hindrance	Date Of Removal Of Hindrance	Over-Lapping Period If Any	Net Hindrance In Days	Sign Of Ae	Weightage Of The Hindrance	Net Effective Days Of Hindrance	Sign Of Ee	Remarks Of Reviewing Officer
1	2	3	4	5	6	7	8	9	10	11	12



MATERIAL AT SITE ACCOUNTS

Region.....

Name of work.....

Name of article.....

Estimate requirements.....

Issue rate.....

S.No.	Date Of Receipt	Received From	Unit	Qty. Received	Progressive received Qty.	Date of issue	To whom issued	Qty. issued	Progressive issued qty.	Balance	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Contractor's Signature with Stamp



CEMENT REGISTER

Date Of Receipts	Quantity Received	Progressive Recd. Quantity	Date Of Issue	Quantity Issued	Items Of Work For Which Issued	Quantity Returned At The End Of The Day	Total Issue	Progressive Total	Daily Balance At Hand	Contractor's Initial	Site Engineer's Initial	Remarks AE/EE At Periodical Checks
1	2	3	4	5	6	7	8	9	10	11	12	13

Contractor's Signature with Stamp



REGISTER FOR RECORDING LEVELS

S.No.	Changes	Back sight	Intermediate sight	Fore sight	Height of the instrument	Reduce dlevel	Remarks
1	2	3	4	5	6	7	8



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REGISTER FOR SILT CONTENT OF FINE/COARSE SAND

S.No	DATE OF TEST	SOURCE OF MATERIAL	HEIGHT OF SILT AFTER SETTING (V-1)	HEIGHT OF SNAD AFTER SETTING (V-2)	%AGE OF SILT CONTENT V1/V2X100	ACCEPTABILITY AS PER SPECIFICATION	SIGN OF SITE ENGINEER WITH DATE	SIGN OF CONTRACTOR WITH DATE	LOCATION ON WHERE SAND USED	REMARKS / ACTION TAKEN
1	2	3	4	5	6	7	8	9	10	11

Contractor's Signature with Stamp



REGISTER FOR SLUMP TEST

S.No.	Date Of Testing	Item Of Work & Location	Vibrator Used Yes/No	Quantity Of Water Added Per Bag Of Cement (Ltrs.)	Height Of Specimen After Removal Of Mould In(mm)	Slump (mm)	Acceptability Of Result Of Action Taken	Sign Of Site Engineer With Date	Sign Of Contractor With Date	Remarks
1	2	3	4	5	6	7	8	9	10	11

Contractor's Signature with Stamp



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SAMPLE REGISTER

Material & Identification Mark	No. Of Samples Collected	S.No. Of Sample	Place From Where Sample Collected	Qty. Of Work/Lot Represented By Each Sample	Test	Field/ Lab	Letter No.& Date By Which Sample Sent For Testing	Signature Of Official Drawing Sample	Signature Of The Contractor	Reference For The Results Received	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Contractor's Signature with Stamp



REGISTER FOR PARTICLE SIZE DISTRIBUTION FOR COARSE AGG. & FINE AGG.

S.No	Date	Weight Of Sample In Gms	Size Of Sieve s	Weight Retained N On Each Sieve	%Age Of Weight Retained	Cumulative %Age Of Weight Retained	%Age Of Weight Passin g	Specified %Age Of Weight Passing	Sign Of Contractor With Date	Sige Of Site Engineer With Date	Remarks/ Action Taken
1	2	3	4	5	6	7	8	9	10	11	12

NOTE: SIZE OF SEIVE SHOULD BE AS PER CPWD MANUAL/BIS SPECIFICATIONS.

Contractor's Signature with Stamp

[illegible]

Density Test by Core Cutter Method

MDD as per lab test WS.....

SL No	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Location (C.H.) / Area Represented by the Test														
Core Cutter Nos.														
Weight of Core Cutter + Weight of Soil (in gram) (W1)														
Weight of Empty Core cutter (in gram) (W2)														
Weight of Wet Soil (in gram) W = W1-W2														
Volume of Core Cutter (in CC) V														
Bulk Density (gram/cc) W3= W/V														
Moisture Content of compaction layers (M)														
Dry Density gram/cc W4 = W3/(1+M)														
Degree of compaction W4/W5														
Acceptability limit														
Sign. of Site Engineer with date														
Contractor / contractor's representative Signature with Name & date														

**BILL PROFORMA
ON LETTER HEAD OF CONTRACTOR**

Name of work:-
Agreement No:-
Date of preparation of bill:-

Date of start:-
Due date of completion:-

Details of Service Provider	Details of Service Receiver
Name:	Name:
Address:	Address:
City:	City:
State:	State:
State Code:	State Code:
GSTIN:	GSTIN (if Registered):
PAN NO.:	

Invoice Serial No.: _____

HSN

Date of Invoice: _____

Description of Services:

S.No.	Item No.	Description of Items	Unit	Qty as per Agt.	Rate as per Agt.	Qty as per Pre. Bill	Qty as per this Bill	Cumulative Qty.	Amt. as per Previous Bill	Amt. as per this Bill	Cumulative Amt.
1											
2											
3											
4											
						Total					
						Grand Total					

Total Invoice Value (in figure)
Total Invoice Value (in Words)

Amount of Tax Subject to reverse Charge: NIL

Total Taxable Value	
	Rate
CGST	%
SGST	%
IGST*	%
Total Invoice Amt.	

Signature: _____
Name of the Signatory: _____
Designation/Status: _____

Contractor's Signature with Stamp

SECTION-VIII

LIST OF MANDATORY TEST

LIST OF MANDATORY TESTS

S. No.	Description of Material	Test	Reference of IS Code / Specification for testing	Field / Laboratory test	Frequency of testing
1	Cement (Approved brand :-JK, Gujarat Ambuja, Birla Uttam, ACC, Vikram Shree, Ultratech, Binani, Lafarge, Madras Cement (Ramco), India Cement, Jaypee, J K Laxmi, Dalmia)	Physical & chemical properties	IS : 4031	Lab	Strength Test-01 test for each brand of cement. Subsequently, 01 test for 200 MT or part thereof for each brand. Cement should be of approved brand and each lot should be accompanied by manufacturer's test certificates.
2	Reinforcement steel (Approved brand:-SAIL, TATA, RINL, JINDAL)	Physical & chemical properties	IS : 1786	Lab	Strength Test-01 test for each brand and each dia of reinforcement steel , Subsequently - One test for every 25/35/45 MT or part thereof (As specified in Special condition of Contract Para 6.7) Reinforcement Steel should be of approved brand and each lot should be accompanied by manufacturer's test certificates
3	Water	PH value, chlorides, sulphates, alkalinity test, acidity test, suspended matter, organic matter and inorganic matter	IS:3025	Lab	Initial Test- Source approval at commencement of work and Subsequently- every six months or change of source.
4	Coarse Aggregate - Building works	Gradation	IS 2386 - I	Field / Lab	Minimum one test for every 50 cum or part thereof.
		Deleterious material	IS 2386 - II	Field / Lab	
		Specific Gravity	IS 2386 - III	Field / Lab	
		Crushing value	IS 2386 - IV	Field / Lab	
		Impact value	IS 2386 - IV	Field / Lab	
		10% fine value	IS 2386 - IV	Field / Lab	

5	Fine Aggregate-Building works	Organic impurities	Appendix 'A' of chapter 3, CPWD Specifications	Field	Minimum one test for every 50 cum or part thereof.
		Silt content	Appendix 'C' of chapter 3, CPWD Specifications	Field	
		Bulking of Sand	Appendix 'D' of chapter 3, CPWD Specifications	Field	
		Gradation	Appendix 'B' of chapter 3, CPWD Specifications	Field / Lab	
6	Slump Test -Building Works		Appendix 'D' of Chapter 4, CPWD Specifications	Field	Minimum one test for every 20 cum of concrete or part thereof

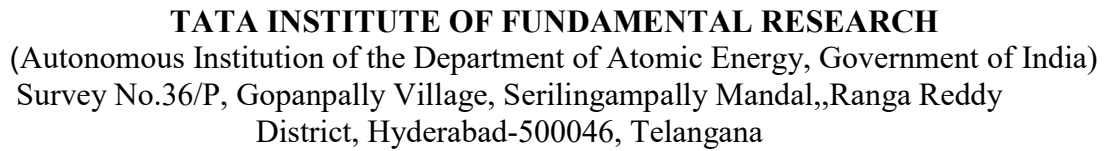
7	Cube Test				
(i)	Reinforced Cement Concrete - Building works	7 days and 28 days Compressive strength	IS 516	Lab	One sample of six cubes for every 50 cum or part thereof

8	Stone work				
		Water absorption	IS 1124	Lab	Minimum one test for every 200 sqm /100 cum or part thereof
		Transverse Strength	IS 1121 - II		
		Resistance to wear	IS 1706		
		Durability	IS 1126		



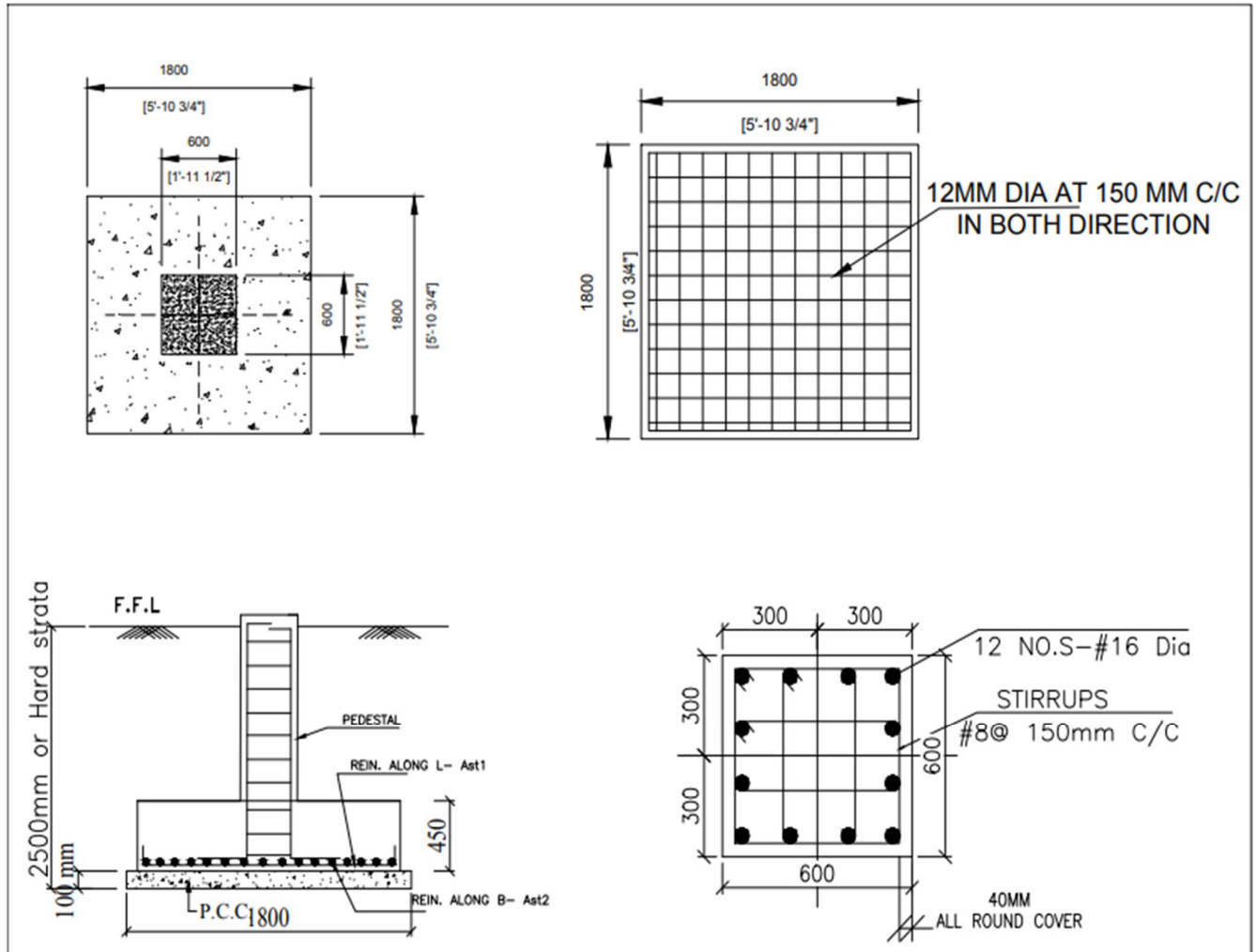
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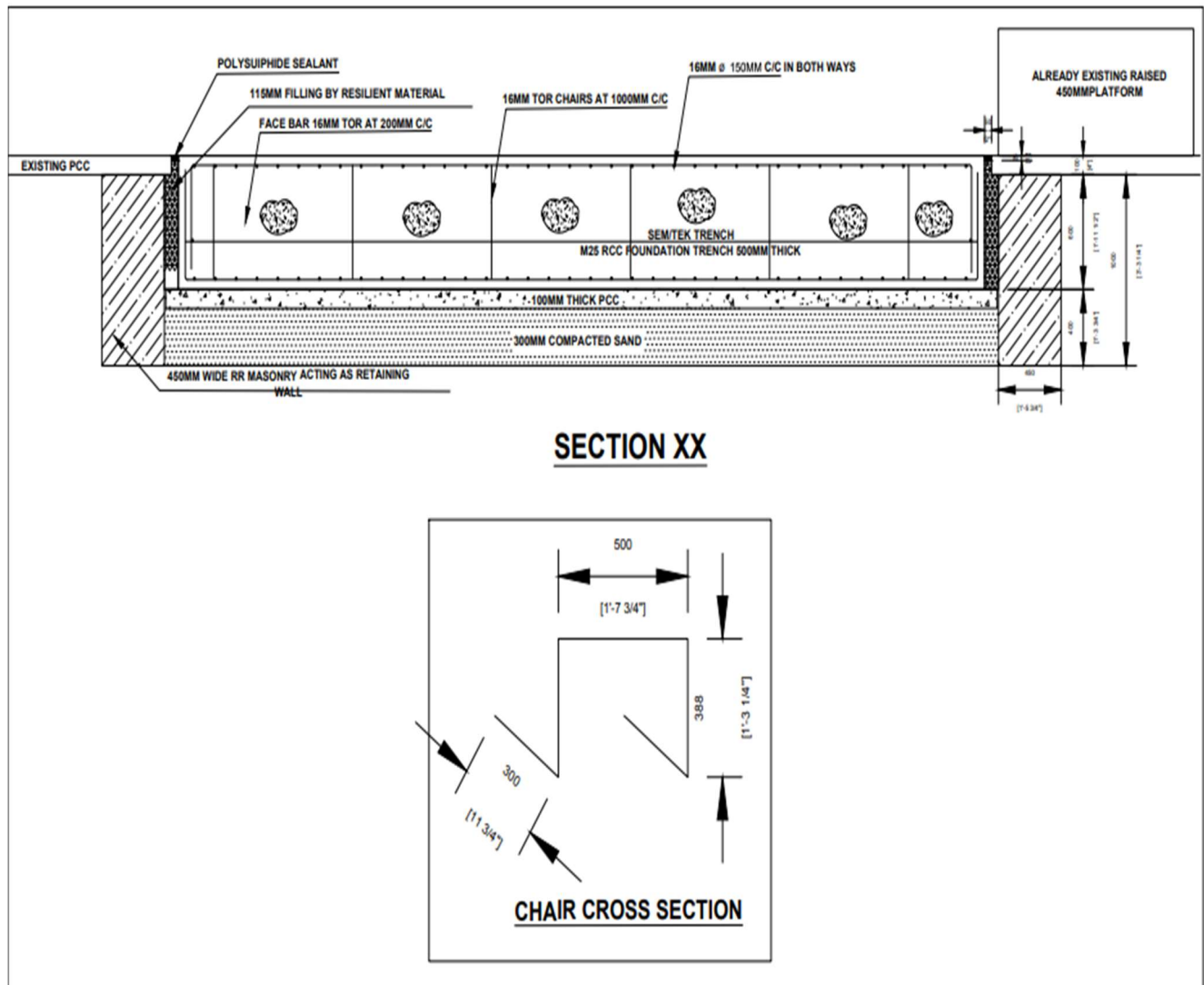
9	Sand for Bedding Layer				
		Percentage of Deleterious material	IS 2386	Lab	Minimum one test for every 50 cum or part thereof
		Particle Size Distribution	As per Technical specification	Field / Lab	
		Silt Content	As per Appendix 'C' of Chapter 3 of CPWD Specifications	Field	
		Moisture Content	IS 2720	Field	



DRAWINGS









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SECTION - X

FINANCIAL BID

**INVITATION OF BIDS
FOR**

**Vibration Isolation work for Laser Hall Petawatt Building at TIFR, plot B, No. Survey
No. 36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District,
Hyderabad.**

FINANCIAL BID

PART –II



SCHEDULE OF QUANTITIES

Vibration Isolation work for Laser Hall Petawatt Building at Plot-B, TIFR Hyderabad, Survey No.36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy District, Hyderabad

Sr.No.	Item Description	Unit	Qty	Unit Price	Total Price in INR
1	EXCAVATION Earthwork in excavation below Ground Level in all kinds of soils up to hard strata to a maximum depth of 2.5 m below existing FGL; staking out of work as per specifications; taking spot levels on edges & centerline @ 3m c/c as per specifications; bailing out of water if encountered; providing side strutting if required, carting away and disposing the excavated earth beyond site boundaries to suitable dumping spots/unobjectionable places; obtaining approval from Mining Department/Applicable departments by payment of royalty; Right of way payments; loading at TIFR-TCIS, HYDERABAD premises; transportation to dumping spots/unobjectionable places; unloading & leveling at dumping spots/unobjectionable places; For depth up to and including 2.5M	Cum	675		
2	PLAIN CEMENT CONCRETE Supplying and Laying Plain Cement Concrete of Grade 1:4:8 with stone aggregate of 40mm down size (including shuttering if required) in all leveling courses under Foundation, Floors, Pipelines, Pits, trenches etc., at all depths complete all as per Drawings and Specifications and instruction of the Engineer.	Cum	60		
3	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete as per direction of engineer in charge.	Cum	150		



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4	REINFORCED cement concrete of M-25 grade using graded stone aggregate of 20 mm max. size including machine mixing, consolidation, finishing, curing etc. complete at all heights including placing temperature of concreting not exceeding 23o C as per specifications Including formwork, shuttering complete as per drawings, specifications and as directed by the Engineer-in-charge. The cost also inclusive of doing vdf. M-25 Grade Design Mix Concrete, using 20 mm downgraded coarse aggregate IN SUB-STRUCTURE RMC Make: RDC, ENGINEER'S CONCRETE or Equivalent.	Cum	335		
5	REINFORCEMENT STEEL Supplying and Fabricating and Fixing in position TMT Steel Reinforcements of Grade Fe-500 conforming to IS at all levels and positions including the Cost of transport, Straightening, Cutting, Bending, Cranking, Binding, Welding, Provision of necessary Chairs and Spacers, Preparation of bar bending schedule, Drawings, getting the same approved etc., as per Drawings and Specifications and including Cost of binding wire, Labor etc., all complete for Reinforced Concrete. Only approved chairs, spacers & overlaps shall be used. Make:Tata,JSW or equivalent	Mt	40		
6	Providing and Construction of Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with Cement mortar 1:6 (1 cement : 6 coarse sand) etc., complete all as per the directions of the Engineer - in - charge.	Cum	15		
7	Supply of 50mm thick high performance premoulded expansion joint filler board (SILFLEX CAPCELL HD-100 or equivalent make), placing the same 50 mm below top of pavement slab, sealing with bituminous hot sealing compound (Grade 'A' ISI)/polysulphide in CC Salb periphery including cost and conveyance of all materials for expansion joints conforming to MORTH specification No. 602 - 1 Rmt of joint length for 600 mm thick slab.	Rmt	100		
		Total in Rs			
		Gst @ 18%			
		Grand Total in Rs			



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Note: TIFR, Hyderabad has right to delete any of above items from scope of work or may increase/reduce quantities as per its requirement during execution of work. No claim or compensation for such deletion/increase/decrease will be accepted/paid to contractor. Payment will be made as per actual quantities executed at tender rates.