
E-TENDER DOCUMENT

NAME OF THE WORK:

Construction of Tensile Membrane Fabric, Polycarbonate Sheet Shed with Tubular Structure, uPVC Partition work, and allied civil work for Metal Dome Structure on the second-floor terrace at National Science Centre, Delhi.

TENDER INVITING AUTHORITY

**National Science Centre
Near gate No. 1, Pragati Maidan
Bhairon Marg, New Delhi – 110001
(A constituent unit of National Council of Science Museums)**



Ministry of Culture
Government of India



NATIONAL COUNCIL OF SCIENCE MUSEUMS

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INSTRUCTIONS TO THE TENDERERS/BIDDERS FOR E-SUBMISSION OF BIDS ONLINE THROUGH E-PROCUREMENT SITE <https://eprocure.gov.in/eprocure/app>

This tender document has been published on the Central Public Procurement (CPP) Portal (URL: <https://eprocure.gov.in/eprocure/app>). The tenderers/bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the tenderers/bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal. More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>

REGISTRATION

- 1) Tenderers/bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Click here to Enrol**” on the CPP Portal. Enrolment is free of Charge.

As part of the enrolment process, the tenderers/bidders will be required to choose a unique username and assign a password for their accounts.

Tenderers/bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

Upon enrolment, the tenderers/bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.

Only one valid DSC should be registered by a tenderer/bidders. Please note that the tenderers/bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

Bidder then logs in to the site through the secured log-in by entering their user ID & password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- (a) There are various search options built in the CPP Portal, to facilitate tenderers/bidders to search active tenders by several parameters. These parameters could include organization name, location, date, value, etc. There is also an option of ‘**Advanced Search**’ for tenders, wherein the tenderers/bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- (b) Once the tenderers/bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective “My Tenders” folder. This would enable the CPP Portal to intimate the tenderers/bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- (c) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- (a) Tenderer/bidder should take into account any corrigendum published on the tender document before submitting their bids. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and contents of each of the documents that need to be submitted.

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- (b) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally they can be in PDF / XLS / RAR / DWF formats as mentioned. **Bid documents may be scanned with 100 dpi with black and white option.**
- (c) To avoid the time and efforts required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the tenderers/bidders. Tenderers/bidders can use “My Space” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting the bid just by tagging and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Tenderer/bidder should log into the site well in advance for bid submission so that he/she up loads the Bid in time i.e. on or before the bid submission time as per the system. Bidder will be responsible for any delay due to other issues.
- 2) Tenderer/bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the tenderers/bidders. The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected.
- 4) The tenderer should furnish duly signed Bid Securing Declaration as per the format given in Annexure “C” and upload along with technical bid of the tender.
- 5) Tenderers/bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. The price bid has been given as a standard **Rate Quote Sheet (Percentage BoQ Template)** in .xls format with the tender document, which is to be downloaded and to be filled by all the tenderers/bidders. Tenderers/bidders are required to download the **Rate Quote Sheet (Percentage BoQ Template)** file, open it and complete the **blue colored (unprotected)** cells with their respective financial quotes and other details (such as name of the Tenderer/bidder). No other cells should be changed. Once the details have been completed, the tenderer/bidder should save it and submit it online, without changing the filename. If the **Rate Quote Sheet (Percentage BoQ Template)** file is found to be modified by the tenderer/bidder, the bid will be rejected. In e-Tendering, intending tenderer/bidder can quote their rate in figures only. The total amount is generated automatically. Therefore, the rate quoted by the tenderer/bidder in figures shall be taken as correct. The Comparative Statement is also generated automatically by the system. The Comparative Statement and rate quoted by each tenderer/bidder shall be downloaded. **The manual calculation check of tenders/bids and Comparative Statement, shall be final. In case, any discrepancy is noticed, the decision of appropriate NCSM authority shall be final and binding.**
- 6) The server time (which is displayed on the tender’s/bidder’s dashboard) will be considered as the standard time for referring the deadlines for submission of the bids by the tenderers/bidders, opening of bids etc. The tenderers/bidders should follow this time during bid submission. The tenderers/bidders are requested to submit the tenders/bids through online e-tendering system to the **Tender Inviting Authority (TIA)** well before the bid submission end date & time (as per Server System Clock).
- 7) All the documents being submitted by the tenderers/bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the

bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done.

- 8) The uploaded tender documents become readable only after the tender opening by the authorized tender/bid openers.
- 9) Upon the successful and timely submission of tenders/bids, the portal will give a successful tender/bid submission message & a tender/bid summary will be displayed with the NIT/tender/bid no. or Name of Work and the date & time of submission of the tender/bid with all other relevant details.
- 10) The tender/bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any tender/bid opening meetings.

ASSISTANCE TO TENDERERS/BIDDERS

- (a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the **Tender Inviting Authority (TIA), National Science Centre, Near Gate No. 01, Pragati Maidan, Bhairon Road, New Delhi- 110001**
Ph. 011-7428693710-17 Fax- 011-23371263 Website: www.nscd.gov.in
Email: nscdl01@gmail.com , nscdelhivilsection@gmail.com
 - (b) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed call to the 24x7 CPP Portal Helpdesk Ph. **1800-3070-2232**.
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NOTICE INVITING E-TENDER (E-NIT)

No. NSCD/15014/1/e-tender/09/2022-23 (Civil)

Dated: 28.08.2023

1. The **National Science Centre, Delhi** is a constituent unit under the National Council of Science Museums, Kolkata* (*hereinafter referred to as the Museum/Centre).
2. Online e-tenders (Percentage Rate Bid) are hereby invited from reputed and experienced Engineering/Technical contractors who are also empanelled with Central Government / Central Autonomous Bodies/ State PWD/ Central Public Sector Undertakings/ in any other dept. and capable of carrying out the work of “**Construction of Tensile Membrane Fabric, Polycarbonate Sheet Shed with Tubular Structure, uPVC Partition work, and allied civil work for Metal Dome Structure on the second-floor terrace at National Science Centre, Delhi.**” with excellent finishing quality.

Eligibility Criteria

3. The bidder could be an Individual, Limited Company/Corporation, Proprietary Firm, Partnership etc. enlisted/ empanelled with Central Government / Central Autonomous Bodies/ State PWD/ Central Public Sector Undertakings/ or in any other dept. in appropriate category.
4. The Bidder should have the requisite work experience and should have successfully completed similar works/ projects during the last 5 years (the cut-off date will be the date of publication of the tender) as per the details given below:
 - (i) **1 (one)** similar work (in Central Government/ Central Autonomous Bodies/ State PWD/ Central Public Sector Undertakings) of aggregate cost not less than 80% of the estimated cost.

OR
 - (ii) **2 (two)** similar works (at least one of them should be in Central Government / Central Autonomous Bodies/ State PWD / Central Public Sector Undertakings) each costing not less than 60% of the estimated cost.

OR
 - (iii) **3 (three)** similar works (at least one of them should be in Central Government / Central Autonomous Bodies/ State PWD/ Central Public Sector Undertakings) each costing not less than 40% of estimated cost.

(Similar works mean: Work of Tensile Membrane Fabric Shed with Tubular Structure, Polycarbonate sheet roofing and allied civil works as per CPWD specifications.)

5. Bidders should have valid GST Registration, Income Tax PAN Number.

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6. Agencies should be Empanelled with **CPWD/ State PWD/ Railways/MES/ other Central Government / State Government Departments/ or in any other government/ semi-government/ Banks/ public sector dept.** under appropriate class/ category to take up the work of the estimated value.
7. **The place of work:** National Science Centre, Pragati Maidan, Delhi.
8. Important Information & Dates: -

i. Name of Work	Construction of Tensile Membrane Fabric, Polycarbonate Sheet Shed with Tubular Structure, uPVC Partition work, and allied civil work for Metal Dome Structure on the second-floor terrace at National Science Centre, Delhi.
ii. Estimated cost of work	Rs. 1646547.00
iii. EMD Amount	Rs. 41,200/-
iv. Cost of tender document/tender fee	NIL
v. Period of completion of work	90 Days
vi. Bid Document Publishing Date & Time	August 30, 2023 (3.00 PM) (As per portal time)
vii. Bid Document Download Start Date & Time	August 30, 2023 (3.30 PM) (As per portal time)
viii. Seek Clarification Start Date & Time	August 30, 2023 (3.45 PM) (As per portal time)
ix. Seek Clarification End Date & Time	September 13, 2023 (01.00 PM) (As per portal time)
x. Bid Document Download End Date & Time	September 13, 2023 (01.30 PM) (As per portal time)
xi) Bid submission Start Date & Time	August 30, 2023 (4.00 PM) (As per portal time)
xii) Bid submission End Date & Time	September 13, 2023 (2.30 PM) (As per portal time)
xiii) Bid Opening(Technical) Date & Time	September 14, 2023 (03.00 PM) (As per portal time)

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9. The intending tenderers/bidders must read the terms and conditions of the tender document published by NATIONAL SCIENCE CENTRE, DELHI carefully. They should only submit their bid if they consider themselves eligible and if they are in possession of all the documents required.
10. Information and Instructions for tenderers/bidders posted on website shall form a part of the bid document.
11. The bid document consisting of plans, specifications, schedule of quantities of various types of items to be executed and the set of Terms and Conditions of the contract to be complied with and other necessary documents can be seen and downloaded free of cost from <https://eprocure.gov.in/eprocure/app>.
12. Those tenderers/bidders not registered on the website mentioned above, are required to get themselves registered beforehand.
13. The intending tenderer/bidder must have valid Class II or Class III Certificates with signing key usage (DSC) to submit the bid.
14. The e-Tenders are invited under two envelopes system. The first electronic envelope will be named as Technical Envelope & will contain documents of tenderer's/bidder's satisfying the eligibility conditions, scanned copies of EMD instrument, tender documents, NIT etc. and the second electronic envelope will be named as Financial Envelope containing Rate Quote Sheet. The bidder shall submit TECHNICAL BID ENVELOPE and FINANCIAL BID ENVELOPE simultaneously. The technical bids will be evaluated first and thereafter financial bids of only the eligible tenderers/bidders who's EMD in physical form is received at National Science Centre, Delhi before date of opening of tenders, shall be opened. These envelopes shall contain one set of the following documents: -
- a) **TECHNICAL BID ENVELOPE shall contain the following documents:**
- i) Scanned copy of Demand Draft/Pay order or Banker`s Cheque of any Nationalised/ Scheduled Bank or any other accepted instrument or RTGS/NEFT transaction details as the case may be towards payment of TENDER FEE and EMD in favour of NATIONAL SCIENCE CENTRE payable at DELHI in pdf format.
- Note: - EMD deposited in other modes than online transfer, has to be drawn or duly pledged in favour of 'National Science Centre, Delhi'. For online direct transaction in the account of NSCD the account details of NCSD are given in the ANNEXURE-I.**
- The bidders registered with National Small Scale Industries Corporation (NSIC)/ MSME for the Tendered item under single point registration scheme and desirous of claiming exemptions available to such units on EMD, should submit a copy of each of their valid NSIC/ MSME certificate. Bidders claiming exemption of EMD under this rule (170 of GFR) are however required to submit a signed Bid securing declaration as per format given in Annexure – D**
- ii) Scanned copies proof of eligibility as per Clause No. 3 to 6 of NIT whichever is applicable:

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- a) WORK EXPERIENCE CERTIFICATES/ WORK COMPLETION CERTIFICATE along with Work Order / Letter of Intent issued by Govt. / Semi-Govt. /Autonomous/PSUs and/or Reputed Institution of requisite magnitude issued by appropriate Authority as per Clause No. 4 of NIT whichever is applicable.
 - b) Scanned copies of GST registration and PAN Card issued from appropriate authority in .pdf format.
 - c) Scanned copy of Enlistment Order/Registration certificate with appropriate Authority as applicable, in pdf format as per eligibility criteria as per Clause No. 8 of NIT.
- iii) Scanned copy of UNDERTAKING and Declarations as per Annexure – “A, B and C” duly signed with company seal and uploaded in pdf format.
 - iv) Tender Document comprising of Conditions of contract and Schedule of Quantities (NIT) along with all its Annexures in .pdf format digitally signed and uploaded as token of acceptance.
- b) FINANCIAL BID ENVELOPE shall contain:
 - i. Rate Quote Sheet (Percentage BOQ Template) in .XLS format. Bidders may quote their percentage rate online in this envelope
- 15.** E-tenders which do not fulfil any of the above conditions or are incomplete in any respect are liable for summary rejection.
- 16.** The Museum/Centre does not bind itself to accept the lowest e-tender/bid and the right to reject or accept any or all the e-tenders/bids; e-tendered items or schedules received without assigning any reason whatsoever.
- 17.** Canvassing in connection with e-tenders/bids is strictly prohibited and the e-tenders/bids submitted by the tenderers/bidders who resort to canvassing will be liable for rejection on that ground alone.
- 18.** E-tenders incorporating additional conditions are liable to be rejected.
- 19.** The tenderer(s) must declare in writing that neither he nor any of them is in anyway related to any officer in the National Science Centre, Delhi (National Council of Science Museums, Kolkata), or any of its constituent units as per the format given in Annexure – “A”.
- 20.** GST, Income tax and Labour Cess etc. or duties on materials, freight & transit Insurance F.O.R. site in respect of this contract will be payable by the successful tenderer. Nothing extra will be payable for increase in such taxes or duties even if imposed or levied either before or after the e-tenders are opened or during currency of contract.
- 21.** Before submitting the e-tender, the tenderer shall examine all specifications, drawings, conditions of contract and inspect the site if necessary. The e-tender must be balanced in respect of individual items so that the rates quoted shall remain in force even if the quantities deviate (increase or decrease) to any extent before or during the execution of the work. The successful tenderer/bidder shall be paid at their net rate quoted.

22. For the purpose of opening of the e-tenders/bids as described in Clause 16 of the Notice Inviting e-tender, first the Technical Bid Envelope will be opened and after the authority is satisfied that the documents in the Technical Bid Envelope are in order and EMD in physical form, the FINANCIAL BID ENVELOPE may be opened, subsequently.
23. It may be noted that the Technical Bid Envelope which are not found in order as per National Science Centre, Delhi (NCSM) requirements may be summarily rejected.
24. The selected tenderer will be issued a Letter of Intent by the Museum/Centre and given 15 days' mobilisation time which shall be counted from the date of issue of the Letter of Intent. Within the mobilisation time the tenderer must scrutinise all the working drawings, CPM/PERT/BAR CHART, specifications, etc. and obtain clarifications from the Architect wherever necessary and submit a revised BAR CHART if required by the Museum/Centre. During the mobilisation time, the tenderer shall also mobilise all their resources including men and materials, obtain the supply of water and electricity necessary for construction, erect a temporary cement godown at site if necessary and sign an Agreement with Museum/Centre in approved format at site on a non-judicial stamp paper of proper denomination. The date of commencement of work shall be the date of issue of Letter of Intent.
25. The successful e-tenderer/bidder selected for the work has to deposit the prescribed performance guarantee (i.e. 3% of the tendered amount) and sign the formal agreement within 07 days from the date of issue of Letter of Intent to them by the Museum/Centre failing which their EMD, deposited with tender, is liable to be forfeited.
26. The validity period of the e-tender shall be at least 03 (THREE) months from the date of opening of e-tenders. This period may be extended with mutual consent if the decision regarding issue of Letter of Intent is delayed for any reason.

Appendix to NIT

1. SUMMARY CONDITIONS OF CONTRACT:

Defect Liability Period	One year from the date of virtual completion as certified by the Museum/Centre or from the date of passing of final bill.
Time for Completion	90 Days from the date of Letter of Intent as per NIT Clause 10 (v).
Minimum value of work for Interim Certificate	One lakh or less at the discretion of the Museum/Centre but not more than one running bill in a fortnight.
Earnest Money to be deposited with the e-tender	41,200/- In Case of online transaction in the account of NSCD as per <u>ANNEXURE-I</u>
Liquidated damages for non-completion of work in time (Clause 39 of the general conditions of contract).	One per cent per week of the total cost of the work awarded subject to a maximum of 10% of gross value of work done or cost of the work awarded whichever is greater.
Liquidated damages for insufficient progress of work (Clause 39 of the general conditions of Contract).	Half per cent per week of the total cost of the work awarded subject to a maximum of 10% of gross value of work done or cost of the work awarded whichever is greater.

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2. RETENTION MONEY FOR DLP OF 01 YEAR FROM DATE OF COMPLETION OF WORK:

Total : 10% as per the following detail-

i. Performance guarantee : 3% of tendered value (After adjusting EMD deposited with tender) to be deposited on award of work before signing of agreement through Demand Draft drawn on any Nationalised Bank/Certified Cheque from a Nationalised Bank or insurance surety bond or fixed deposit receipt or bank guarantee or online transaction in the account of NSCD as per **annexure-I.**

Note: - i. EMD and Performance Guarantee (PG) deposited in other modes than online transfer has to be drawn or duly pledged in favour of National Science Centre, Delhi.

ii. Security deposit : 7 % of the value of work done to be recovered from R.A. Bills

3. Period of submitting final bill : 03 months from the date of virtual completion by the successful tenderer.

4. ESCALATION CLAUSE : Not applicable

5. MATERIALS TO BE ISSUED (for civil works only) : No material shall be issued departmentally,

6. REMARKS (for civil works only)

It shall be the responsibility of the successful e-tenderer to erect at site an appropriate shed for proper storage of cement with a capacity for three months' consumption. The stored cement shall be under double lock-with one key in custody of the successful e-tenderer and the other key in custody of the Museum/Centre so that the storage shed can be opened only in presence of both together. It shall be the responsibility of the successful e-tenderer to arrange for electricity and water or any other service required for construction and to arrange for housing of their own staff outside the site.

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GENERAL CONDITIONS OF CONTRACT

1. INTERPRETATION

The terms as used in the e-tender documents and agreement and named hereunder shall have the meanings herein assigned to them except where the subject or context otherwise requires: -

“This agreement” shall comprise of the Articles of Agreement along with the Appendix, the Conditions of Contract, the Priced Schedule of Quantities, Specifications and Drawings and CPM/PERT/BAR CHART attached hereto and including those to which only a reference is made herein.

“Work” or “Works” shall mean all work or works defined by Bills of quantities, Drawings, Specifications and such other work or works as the successful e-tenderer may be entrusted with for carrying out under this agreement as per Clause 4 of the Articles of Agreement.

“Museum/Centre” shall meanNational Science Centre, Delhi..... under the National Council of Science Museums which shall include the persons for the time being in management of the Society and its assigns.

“Engineer” shall mean the Curator or Technical Officer authorized as such by the Museum/Centre or in the event of his ceasing to be Engineer for the work such other firm or persons as may be appointed by the Museum/Centre as Engineer for this work. (Further elaboration given in Clause 2 below):

“Successful e-tenderer” shall mean(Name of Successful tenderer)..... and shall include his/their respective heirs, executors, administrators and assigns.

“Site” shall mean the site of the construction works as shown on the site plan attached hereto including any buildings and erection thereon and any other land adjoining these to (Inclusive) as aforesaid allotted by the Museum/Centre for the use of successful e-tenderer.

“Act of Insolvency” shall mean any act of insolvency as defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any Amending Statute.

“Notice in Writing” or “Written Notice” shall mean a notice or communication in written, typed or printed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have received when in the ordinary course of post, it would have been delivered. “Virtual Completion” shall mean that the works carried out are fit for occupation in every respect including removal of scaffolding, plant, surplus material and rubbish and cleaning of dirt from work and site. Words imputing persons include firms and corporation’s words imputing the singular only also include the plural and vice versa where the context so requires.

Short headlines are given to each Clause for convenience only and they will not limit the meaning or scope of the Clause in any way.

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2. ENGINEER

The plans, agreement and documents above mentioned shall form the basis of this agreement and the decision of the said Engineer or the other Engineer for the time being as mentioned in the said conditions, in reference to all matters or dispute as to material and workmanship shall be final and binding on both the parties.

The term “Engineer” shall mean the firm or person(s) appointed by the Museum/Centre to superintend the work. He/They will receive his/their instruction for the work from the Museum/Centre.

The successful e-tenderer shall afford the said Engineer(s) every facility and assistance for examining the work and materials and for checking and measuring works and materials.

The Engineer or any Authorized Assistant of the Engineer shall have power to give notice to the successful e-tenderer or to his Supervisors of non-approval of any work, or materials, and such work shall be suspended or the use of such materials shall be discontinued. The work from time to time be examined by the Engineer or the Engineer’s Assistant but such examination shall not in any way exonerate the successful e-tenderer from the obligation to remedy any defects due to materials or workmanship not in accordance with the contract which may be found to exist at any stage of the work or may appear within the defects liability period mentioned in clause 20.

3. SCOPE OF THE CONTRACT

The successful e-tenderer shall carry out and complete the works in every respect in accordance with this contract and in accordance with the directions of the Engineer and to the satisfaction of the Engineer and the Museum/Centre. The Engineer may from time to time issue further drawings and/or written instructions, detailed directions and explanations in regard to:

- (a) The variation or modification of the design, quality or quantity of works for the addition or omissions or substitution of any work.
- (b) Any discrepancy in the drawings or between the schedule of quantities and/or drawing and/or specifications.
- (c) The removal from the site of any material brought therein by the successful e-tenderer and the substitution of any other materials there from.
- (d) The removal and/or re-execution of any works executed by the successful e-tenderer.
- (e) The dismissal from the works of any persons employed thereupon.
- (f) The opening up for inspection of any work covered up.
- (g) The amending and making good of any defects under Clause 20.

The successful e-tenderer shall comply with and duly execute any work comprised in such instructions, detailed directions and explanations, provided always that if the Engineer’s instructions involved variations from the priced Schedule of Quantities, such instructions shall be issued by the Museum/Centre and the successful e-tenderer shall take the action stipulated in Clause 34.

If the work shown on any such further drawings or detailed drawings or that may be necessary to comply with any such instructions, directions, or explanations be in the opinion of the successful e-tenderer, extra to that comprised in or reasonably to be inferred from the

contract he shall before proceeding with such work, give notice in writing to this effect to the Engineer, and in the event of his not doing so three days before the commencement of such work the successful e-tenderer shall not be entitled to any allowance in respect of any such extra work. But if such notice has been duly given and the Engineer and the successful e-tenderer, fail to agree as to whether or not there is any extra, then if the Engineer decides that the successful e-tenderer is to carry out the said work, the successful e-tenderer shall do so accordingly, and the question whether or not there is any extra and if so, the amount thereof shall failing agreement be settled by the Arbitration as provided in Clause 44 on a reference being made by the successful e-tenderer.

4. SCOPE OF WORK

Even if not specifically mentioned in the schedule of quantities, the successful e-tenderer shall be deemed to have allowed necessary material, labour, tools and plants etc. required for satisfactory completion of the items of work as indicated in drawings and description given in the specifications, which are attached herewith unless the item specifies labour only or otherwise. Rates quoted also apply for work in patches, strips, small or large areas, and for different shapes and in different sizes and in different planes (Horizontal/vertical or inclined).

5. INSPECTION OF SITE

The e-tenderer must visit site before giving e-tender and must get acquainted with the working conditions. The e-tenderer shall examine all specifications, e-tender conditions and drawings before e-tendering for the works. The e-tenderer shall obtain all information relating to local regulations, bye-laws, application of any and all laws relating to his work or profession. No additional claims shall be admissible on this account.

1. WATER, ELECTRICITY AND CEMENT GODOWN

The successful e-tenderer shall construct at the site at their own cost temporary cement godown within the mobilization time as described in NIT Clause 26, of appropriate size suitable for proper and safe storage of 3 months' consumption of cement. They will also arrange at their own cost supply of water and electric power at site required by them for construction.

7. SUCCESSFUL E-TENDERER TO PROVIDE EVERYTHING NECESSARY

The successful e-tenderer shall provide everything necessary for the proper execution of the works according to the true intent and meaning of the drawings and specifications and bill of quantities taken together, whether the same may or may not be particularly shown on the drawings or described in the specifications or included in the bill of quantities, provided that the same is to be reasonably inferred there from and if he finds any discrepancy in the drawings, or between the drawings and specifications and bill of quantities, he shall immediately refer the same to the Engineer who shall decide which shall be followed. Figured dimensions shall be followed in reference to scale.

The Successful e-tenderer shall supply, fix and maintain at his cost during the execution of any works, all the necessary centering, scaffolding, staging, planking, timbering, shuttering,

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shoring, pumping, fencing, boarding, watching and lighting by night as well as by day required for the proper execution and protection of the public and the safety of any adjacent roads, streets, cellars, vaults, eaves, pavement, walls, houses, buildings and all erections, matters or thing, and they shall take down and remove any or all such centering, scaffolding, etc. as occasion shall require or when ordered to do so and shall fully reinstate and make good all matters and all things disturbed during the execution of the works to the satisfaction of the Engineer before a Virtual Completion Certificate is issued.

The Successful e-tenderer shall make his own arrangements for laying temporary water and electrical power lines including excavation if necessary so as not to cause any obstructions along locations approved by the Engineer. The water supply lines, hose pipes, electrical lines, underground or overhead etc. belonging to them should not cause damage to the property of the museum/centre including gardens, plants, flowers, hedges, flower pots in the Campus etc. Any expenditure incurred by the museum/centre due to damage so caused shall be debited to the Successful e-tenderer's account. It is their complete responsibility to ensure that the garden area and its approaches and other areas not allocated to them are not encroached upon by their men and materials. They have to provide a fence at their cost to confine the activities of construction, labour and materials, to the construction area as approved by the Engineer or his representative. The bitumen carpeted road in front of museum/centre's office, Science and Exhibits Laboratory, Stores and Workshop or garden paths and defined areas will not be allowed to be used by their labour, materials, trucks and other modes of transport system. Their labour is not allowed to use Campus grounds for baths, calls of nature etc.

The museum/centre shall on no account be responsible for the expenses incurred by the successful e-tenderer for hired ground or electric power or water obtained from elsewhere.

8. DRAWINGS, DESIGNS ETC.

Contract drawings are diagrammatic but shall be followed as closely as actual construction permits. Any deviations made shall be in conformity with the architectural and other service drawings.

Architectural drawings shall take precedence over electrical and other service drawings as to all dimensions.

Successful e-tenderer shall verify all dimensions at site and bring to the notice of the Engineer all discrepancies or deviations noticed. The Engineer's decision shall be final and binding.

All drawings issued by the Museum/Centre are the property of the Architects and shall not be lent, reproduced or used on any other works than intended without the written permission of the Architects.

Large size details and manufacturer's dimensions for materials to be incorporated shall take precedence over small scale drawings.

One complete set of drawing, specifications and schedule of quantities shall be furnished by the Engineer to the successful e-tenderer and the Engineer shall furnish, within such time as he may consider reasonable, one copy of any additional drawing which in his opinion may be necessary for the execution of any part of work. Such copies shall be kept on the works, and the Engineer and his representatives shall at all reasonable times have access to the

same and they shall be returned to the Engineer by the successful e-tenderer before the issue of the certificate for the balance of this account under the contract.

Museum/Centre will make all efforts to give all drawings, designs; decision etc. from time to time and the successful e-tenderer shall make timely requests for the same. No claim whatsoever shall however be entertained for compensation for the delay in supply of drawings, designs, decisions, running payments, etc. from the Successful e-tenderer. Drawings shown at the time of issue of e-tenders and forming part of the contract shall indicate scope of work and drawings issued subsequently during the execution of work shall be deemed to be drawings elaborating the basic scheme. If any detailed drawings show an item for execution, which in the opinion of the successful e-tenderer is not covered under the items of the contract, he shall immediately refer it to the Engineer, for final decision. Decision of the Engineer as to whether it is an extra item or not or whether it is covered by contracts and if not what extra rate should be paid shall be final and binding on both the parties to the contract i.e. Museum/Centre and the Successful e-tenderer.

9. REFERENCE DRAWINGS & SHOP DRAWINGS

Reference Drawings

The Successful e-tenderer shall maintain one set of all drawings issued to him as reference drawing. These shall not be used at site. All corrections, deviations and changes made at the site shall be shown on these reference drawings for incorporation in the completion drawings. All changes to be made shall be initiated by the Engineer.

Shop Drawings

The Successful e-tenderer at his own cost shall submit to the Engineer as well as to the Architect four copies of shop drawings related to structural steel work, Aluminium door/window, bar bending schedule, Electrical work, Air conditioning work etc. for approval.

10. SCHEDULE OF RATES AND SPECIFICATIONS

Specifications as attached herewith shall be applicable. However, the e-tenderer shall include in his rates all such items of work which are not specifically included in the e-tender schedule but are required to be executed to complete the works in accordance with the drawings, specifications etc. The Museum/Centre is not bound to follow the practice and mode of measurements followed by other departments.

11. ERROR IN SCHEDULE OF QUANTITIES, IF ANY

Should any error appear in the bill of quantities, other than the E-tenderer's prices and calculation, it shall be rectified by the Engineer after informing the Museum/Centre. Such variation shall constitute a deviation of the contract and shall be dealt with as hereinafter provided.

12. NOMENCLATURE OF ITEM

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Nomenclatures of the items of works mentioned in the priced schedule are only a brief description of the work. The work shall have to be executed in accordance with the specifications for the work to the satisfaction of the Engineer of the work. Any omission in description will not absolve the successful e-tenderer from his responsibilities to complete the work in a satisfactory manner.

13. METRIC UNITS

The bills of quantity indicate the unit of Metric system. The mode of measurement of different items of work shall be as per details contained in specification and special conditions, with the equivalent of the units mentioned therein in Metric System.

14. CPWD/PWD SPECIFICATIONS AND I S CODES

CPWD/PWD specifications & relevant I.S. Code of practice shall be applicable, for all items of work

15. ORDER OF PRECEDENCE

If any discrepancy is noticed between the conditions and specifications, drawing etc. the following would be the order of precedence:

- (a) Schedule of Quantities.
- (b) Notice Inviting E-tender (NIT)
- (c) General Conditions of Contract (GCC)
- (d) Drawings and notes thereon.
- (e) Specifications for General Building (civil works) Sanitary and Plumbing, Electrical Installation, Air-conditioning, Acoustic Treatment, Furniture making and/or Wood Paneling, Elevators and Escalators, etc.
- (f) CPWD/PWD Specifications & I.S. codes.

16. SETTING OUT WORK ETC.

(a) The successful e-tenderer at his own expense shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error shall appear during the progress of any part of the work, the Successful e-tenderer shall at his own expense rectify such error if called upon to the satisfaction of the Engineer.

(b) All soil, filth, or other matter of an offensive nature taken out of any trench, sewer, drains, cesspool or any other place shall not be deposited on the surface, but shall be at once carted away by the Successful e-tenderer to some pit or place to be provided by him.

17. MATERIALS

All materials used for this work shall be conforming to the Specifications.

As far as practicable, materials shall conform to the latest Indian Standards as amended upto-date. All materials used on the project shall be approved by the Engineer before use.

Successful e-tenderer may be required to purchase such materials of particular make or from a particular source if in the opinion of Engineer, the same is necessary and is required for

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the proper and reasonable compliance of the specifications and in the interest of better quality of work. The fittings and accessories to be used in the work shall be presented for approval well in advance. Approved fittings shall be kept in the office of the Engineer in a mounted lockable board, to be approved by the successful e-tenderer.

(a) Storage of Materials

All materials shall be stored in a proper manner protected from natural elements so as to avoid contamination and deterioration. Successful e-tenderer's store shall be open to inspection by the Engineer at all reasonable hours. Locations of stores and storage yards shall be approved by the Engineer prior to construction or occupation. Successful e-tenderer shall take adequate protection of the materials against fire and other calamities. All watch and ward staff for his work shall be appointed and maintained by the Successful e-tenderer at his own expense.

(b) Inspection and Testing of Materials

The Successful e-tenderer at his own expense shall make all necessary arrangements for carrying out tests on materials as required by the Engineer. He shall also be required to produce manufacturer's test certificates for the materials supplied by him whenever required by the Engineer. The tests carried out shall be as per the relevant Indian Standards in approved laboratories. The Museum/Centre reserves the right to appoint the testing authorities.

18. FAULTY MATERIALS AND WORK

(a) The Engineer shall during the progress of the work has power to order in writing from time to time the removal from the work, within such reasonable time or times as may be specified in the order, to any materials and/or Workmanship which in the opinion of the Engineer are not in accordance with the specifications or the instructions of the Engineer. The substitution of proper materials or any workmanship and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions shall have to be forthwith carried out by the Successful e-tenderer at his own cost upon receiving such order. In case of default on the part of the Successful e-tenderer to carry out such order the Museum/Centre shall have the power to employ any other persons to carry out the same and all the expenses consequent thereon or incidental thereto shall be borne by the Successful e-tenderer and shall be recovered from them by the Museum/Centre from any money due to or that may become due to the Successful e-tenderer or from the amount of retention money.

(b) In lieu of rectifying the work not done in accordance with the contract the Engineer may, with the consent of the Museum/Centre allow such work to remain, and in that case may make allowance for the difference in value together with such further allowance for damage to the Museum/Centre as in their opinion may be reasonable. Provided always that nothing in this clause shall relieve the Successful e-tenderer from his liability to execute the works in all respect in accordance with those terms and upon and subject to the conditions of this contract or from his liability to make good all defects.

19. ACCESS

The Museum/Centre or its representatives shall at all reasonable time have free access to the works and/or to the workshops factories or other places where materials are being prepared or constructed for the contract and also to any place where materials are lying or from which they are being obtained and the Successful e-tenderer shall give every facility to them for inspection, examination and testing of the materials and workmanship. Except the representative of Public Authorities and those mentioned above, no person shall be allowed on the works at any time without the prior written permission of the Engineer or the Museum/Centre.

If any work is to be done at a place other than the site of works the Successful e-tenderer shall obtain prior written permission of the Engineer for doing so.

20. DEFECT LIABILITY PERIOD AND DEFECTS AFTER COMPLETION

Defect Liability, Period shall be one year from the date of virtual completion of work, as certified by the Museum/Centre. Any defect, shrinkage or other faults, which may appear within the defect liability period, in the opinion of the Engineer, arising from materials or workmanship not in accordance with the contract or from failure to take due precautions, shall upon the directions in writing of the engineer and within such reasonable time as shall be specified therein be amended and made good by the Successful e-tenderer at his own cost. In case of default, the Museum/Centre may employ and pay any other person/persons to amend and make good such defect, shrinkage or other faults and all damage, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the Successful e-tenderer.

Such damage, loss and expenses shall be recoverable from the Successful e-tenderer by the Museum/Centre or may be deducted by them from any money due or that may become due to the Successful e-tenderer. The Museum/Centre may also in lieu of such amendments deduct from any money due to the Successful e-tenderer, a sum to be determined by the Engineer equivalent to the cost of amending such works, and in the event of the amount retained under Clause 32 (the amount held as retention money) being insufficient, recover the balance from the Successful e-tenderer, together with expenses the Museum/Centre may have incurred in connection therewith. The Successful e-tenderer shall remain liable under the provisions of this clause notwithstanding the signing by the Engineer of any certificate or the passing of any bills.

21. OPENING OF WORK

(a) All works under or in course of execution or executed in pursuance of the contract shall at all times be open to the supervision of the Museum/Centre, Engineer or their representatives.

(b) The Successful e-tenderer shall notify the Engineer in writing immediately after the trenches or excavations, as shown in the drawings, are executed or as soon as any ground is cut into which from unexpected causes, appears to need immediate attention. After notifying the Engineer he shall await instructions which shall be given within seven days of receipt of such notice. If the Successful e-tenderer puts in, any part of the foundations before he has notified the Engineer and received instructions, he shall be liable to reinstate all work that may subsequently at any time, be damaged on account of any defect or insufficient foundations. The Successful e-tenderer shall at the request of the Engineer, within such time as indicated by the Engineer, shall open up for inspection any other work and should the Successful e-tenderer refuse or neglect to comply with such request, the Museum/Centre through the Engineer may employ other workmen to open up the same. If the work has been covered up in contravention of Engineer's instructions, or if on being opened up, be found not in accordance with the drawings and specifications or the instructions of the Engineer, the expenses of opening up and covering it up again, whether done by the Successful e-tenderer or such other workmen shall be borne by or be recoverable from the Successful e-tenderer or may be deducted from any money due or which may become due to the Successful e-tenderer or from the amount held as retention money. If the work has not been covered up in contravention of such instructions, and be found in accordance with said drawings and specifications or instructions, the expenses aforesaid shall be borne by the Museum/Centre and shall be added to the contract sum provided always that in the case of foundations or of any other urgent work so opened up and requiring immediate attention, the Engineer shall within seven days after receipt of written notice from the Successful e-tenderer that the Work has been so opened, make or cause to make the inspection thereof and at the expiration of such time if such inspection shall not so have been made, the Successful e-tenderer may cover the same and shall not be required to open it up again, except at the expense of the Museum/Centre.

22. WORK IN SUBSOIL WATER / RAIN WATER/WATER

If during execution of work, sub-soil water is met with, or water enters the working space due to rains or any other cause, the Successful e-tenderer shall do dewatering using pumps or manual labour and also carry out additional work consequent thereupon, including shoring, strutting, work in liquid mud, sludge etc. without extra payment.

23. HEIGHTS

Successful e-tenderer's rates shall include lifts up to all heights given in drawings or as required during execution. They should satisfy themselves for correctness and allow for variation if necessary. Nothing extra will be paid for additional lifts except where special items for lifts exist in schedule. E-tenderer shall include in his e-tender rates allowance for works at extra heights required for double or multiple staging, tall centering, scaffolding

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etc. for all items including extra labour if any. If any deviation from the contract drawings in respect of height is noticed by the e-tenderer in any subsequent working drawing issued to him during continuance of the works that must be brought to the notice of the Engineer (in writing) sufficiently before commencing execution of the work. The decision of the Engineer as to whether this will be an extra item or not or whether the Successful e-tenderer is entitled to get any extra payment or not for execution of this extra height will be final and binding.

24. SCAFFOLDING, CENTERING & SHUTTERING

The Successful e-tenderer shall use external scaffolding to ensure true line in vertical and horizontal planes. Centering, shuttering and scaffolding required for execution of this work may vary from single floor height to multi floor heights, which may require multiple staging, scaffolding, centering and shuttering. Since the payments will be made to the successful e-tenderer at net quoted rates, irrespective of the heights involved the e-tenderers must see and study the drawings carefully before e-tendering their rates.

25. GLAZING

If glass of required thickness is not available in the market the successful e-tenderer shall have to use next higher thickness available without any extra payment. Rate for glazing shall include for providing and fixing either clear or frosted glass as shown in drawings or as directed by the Engineer.

26. WOOD WORK

Sizes mentioned in schedule of quantity or in drawings are the finished sizes. Successful e-tenderer shall allow necessary increase in sizes for planning required. In case the sizes of wooden members fixed are less than the one shown in the drawing schedule of quantity allowing for tolerance, payment will be made for actual size used at site. The rate quoted shall also include the allowance for curved or tapered or any other shape of the wooden member. Wherever the wooden member abuts against masonry/RCC work, all the unexposed surfaces of wood work shall be required to be treated with two coats of suitable ant termite paint. E-tenderer's rates shall include application of two coats of anti -termite paint.

27. SITE CLEARANCE AND CLEAN UP

The Successful e-tenderer shall, from time to time clear away all debris and excess materials accumulated at the site.

After all fixtures, equipment and appliances have been installed and commissioned, they shall clean up the same and remove all plaster, paints, stains, stickers and other foreign matter of discoloration leaving the construction in ready to use condition.

On completion of all works they shall demolish all temporary storages put up by them, remove all surplus materials and leave the site in a broom clean condition.

28. RATES

The rates quoted by the Successful e-tenderer shall be paid at net rates. He should include in his rates allowance for increase or decrease in the prices due to market fluctuation. He shall not be entitled to any separate amount on account of taxes like GST, Income tax, labour cess etc., which are in force or will be enforced or enhanced by Government or local bodies during contract period or after e-tendering. Accepted e-tender rates shall not be changed due to changes in wages of labour either.

29. QUANTITIES

All the quantities given in schedule of quantities are provisional.

The e-tenderers shall be deemed to have given Balanced Rates for each item, irrespective of the quantities given. Also irrespective of variation in quantities to any extent the e-tenderer shall be paid at accepted contract rates only. Museum/Centre reserves the right to increase or decrease quantities to any extent.

30. ESCALATION CLAUSE (Not Applicable)

Payments for variation in prices and wages (escalation) will be admissible as per following details:

(i) Material Escalation: The increase in price of all materials beyond quoted rates will be compensated by the department as per formula given below:

$$V_m = 70/100 \times (0.85V - (C+S)^* \times (WI - WI0 / WI0))$$

Where:

V_m	Variation in materials cost i.e. increase or decrease in the amount in rupees to be paid or recovered.
V	Value of work done excluding advances on material, if any during the period under reckoning.
C	Cost of Cement used in the work
S	Cost of Steel used in the Work
WI	Average All India Wholesale Price Index for all commodities for the period under reckoning as published in the RBI Bulletin.
$WI0$	Average All India Wholesale Price Index for all Commodities during the month of opening of the e-tender as published in the RBI Bulletin.

(ii) Labour Escalation: Increase in the cost of labour beyond quoted rates will be compensated by the museum/centre as per formula given below:

$$V_L = 30/100 \times (0.85V - (C+S)^* \times I - I0 / I0)$$

Where:

V_L — Variation in labour cost i.e. increase or decrease in the Amount in rupees to be paid or recovered.

$V, C \& S$ ————— As stated under (i) above.

I	Average All India Consumer Price Index Number for Industrial Workers declared by Labour Bureau, Government of India, as published in RBI Bulletin during the period under reckoning.
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IO	Average All India Consumer Price Index Number for Industrial Workers declared by Labour Bureau, Government of India, as published in RBI Bulletin during the month of opening of e-tender.
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~~*(Value of (C+S) shall be put in the formula if these materials are issued by the museum/centre). (Otherwise if cement and steel are not issued by the Museum/Centre, the value of (C+S) shall be taken as Zero).~~

~~No Claims for other escalation on any account whatsoever will be entertained.~~

~~The amount of escalation will be calculated monthly for the work done in that particular month and will be paid for quarterly. Escalation is not permissible on successful e-tenderer's overhead and profit that explains the term 0.85V.~~

~~**Ceiling on amount due to escalation**— In no case total amount of escalation, to be paid for the entire work will exceed 20% of the total cost of the work based on the e-tendered rate.~~

31. SECURED ADVANCE

- (a) The Successful e-tenderer shall not be entitled to be paid for the materials brought to site, which remains unused or unfixd. The Engineer, with the concurrence of the Museum/Centre may pay an advance up to 85% of the cost of such material as calculated from the respective e-tender item. When in any certificate, of which the Successful e-tenderer has received payment the value of material at site has been included, such materials shall become the property of the Museum/Centre but the Successful e-tenderer shall be liable for any loss or damage to any such material. They shall furnish an indemnity bond in the prescribed form along with their claim for advance against materials brought to site for *bonafide* use in specific items under the schedule of quantities.
- (b) The secured advance so paid shall be adjusted in the running account bills as and when the materials are used subject to wastage.
- (c) If the specification or schedule of quantities of the work provided use of any special description of materials to be supplied by the Museum/Centre or it is required that the Successful e-tenderer shall use certain stores to be provided by the Museum/Centre, such materials and stores and the price to be charged therefore as hereinafter mentioned, being so far as practicable for the inconvenience of the Successful e-tenderer but not so as in any way to control the meaning or effect of this contract, the Successful e-tenderer may be supplied with such materials and stores as and when required from time to time to be used by him for the purpose of the Contract only, and the value of the full quantity of material and stores supplied at the rates specified in the said schedule appendix memorandum may be set off or deducted from any sum then due or thereafter to become due to the Successful e-tenderer under the contract or otherwise, or from the retention money or against the sale proceeds thereof, if the same is held up in Government Securities, the same or sufficient portion thereof being in this case sold for the purpose.

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All materials supplied to the Successful e-tenderer by the Museum/Centre shall remain absolute property of the Museum/Centre. The Successful e-tenderer shall be fully responsible for their storage and maintenance and shall not on any account remove those from the site of the work. The material shall at all times be open to inspection by the Engineer and/or the Museum/Centre. At the time of the completion of work or termination of the contract, or even earlier if so required by the museum/centre, the same shall be returned to them. The successful e-tenderer shall not be entitled to return any such material unless the same is, in the opinion of the Engineer of the Museum/Centre in perfectly good condition; and shall have no claim for compensation on account of any such materials so supplied to him as aforesaid being unused by him or for any wastage in or damage to any such materials.

- (d) Owing to restriction in obtaining certain materials from the market, the Museum/Centre may undertake to supply certain materials at specified rates as stated in the appendix. In case of delay in supply of these materials by the Museum/Centre, the Successful e-tenderer is required to keep himself in touch with the day to day position regarding the supply of such materials from the Museum/Centre and to adjust the progress of the work in a manner that his labour do not remain idle, nor thereby lodge any claim due to or arising out of delay in obtaining such materials. No claim whatsoever shall be entertained by the Museum/Centre on account of delays in supply of these materials.
- (e) The Successful e-tenderer shall ensure that only the required quantities of materials are got issued and the surplus quantities of materials, if in good condition, shall be taken by the Museum/Centre at the rates fixed in the Appendix.
- (f) Essentiality Certificates/Permits/Recommendation Letters for materials available at controlled rates etc. would be given by the Museum/Centre, if required by the successful e-tenderer. It will, however, be their responsibility to obtain materials against the certificates or otherwise, and no claim on this account or any extension of time for completion of works will be entertained by the Museum/Centre. The Successful e-tenderer shall use materials thus procured exclusively in this work and for misuse, if any, he shall be solely responsible.

32. RETENTION OF MONEY

This shall mean and be 10% of the total gross value of the work as paid for against this contract including the performance guarantee and the amount which shall be recovered from the running bills. In case of termination of contract, this retention money shall be forfeited and amount necessary to make up this amount shall be recovered from the money due to the successful tenderer under this contract, or any other contract. The successful tenderer can give retention money in the form of a Bank Guarantee from a Nationalised Bank in approved format to the extent of 10% of the total cost of work awarded valid for a period equal to completion period plus one year (which will have to be suitably extended to cover defect liability period and extended period of contract whichever is later). Tenderers who have deposited earnest money/ performance guarantee in cash or in Bank Guarantee

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along with the tender could get refund of earnest money deposited in cash or Bank Guarantee after the Bank Guarantee for the 10% of the total cost is received and accepted by the Museum/Centre. The retention money in the form of Bank Guarantee will not be accepted in parts.

The successful tenderer shall have to extend the Bank Guarantee period, from time to time at least three weeks before the expiry of a Bank Guarantee to cover the defects liability period, reckoned from the date of virtual completion. In case they fail to extend the Bank Guarantee at least three weeks before its expiry, it shall be considered a breach of contract on the part of the successful tenderer and hence, the Museum/Centre shall be free to demand the Guarantee money from the Bank. The retention money will be refunded to the successful tenderer after successful completion of defect liability period as per **Appendix to NIT** or from the date of passing of final bill, whichever is later and after the successful tenderer has rectified all the defects pointed out to him.

Note: - EMD and Performance Guarantee deposited in other modes than online transfer, has to be drawn or duly pledged in favour of National Science Centre, Delhi.

33. AUTHORITIES, NOTICES AND PATENTS

The successful e-tenderer shall confirm to the provision of any Act of the Legislature relating to the works, the Regulations and Bye-Laws of any corporations and of any electric and other Companies and/or authorities with whose systems the structure is proposed to be connected, and shall, before making any variation from the drawings or specifications that may be necessitated by so conforming, give to the Engineer written notice, specifying the variation proposed to be made, and the reason for making it, and apply for instructions thereon. If compliance with this clause involves any extra work not included in this contract, he shall specify these items of work and the allowance or extra payment required on their account. In case he shall not, within seven days, received such instructions, shall proceed with the work, conforming to the provision and/or regulation of bye-laws in question.

The amount claimed as an extra or whether there is an extra or not shall be decided by the Engineer and will be subject to arbitration clause if so required.

The successful e-tenderer give all notices required by the said regulations or bye-laws to be given to any authority and pay to such authority or to any public office all fees that may be properly chargeable in respect of the works and lodge the receipts with the bill.

The successful e-tenderer shall indemnify the Museum/Centre against all claims in respect of patent rights, and shall defend all action arising from such claims and shall himself pay all royalties, licence fees, damages, cost and charges of all and every sort that may be legally incurred in respect thereof.

34. DEVIATIONS

The successful e-tenderer may when authorize and when directed, in writing by the Engineer with the approval of the Museum/Centre add or omit or vary the works shown upon the drawings, or described in the specifications, or included the bill of quantities, but they shall make no addition, omission or variation without such authorization or direction.

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A verbal authority direction by the Engineer shall, if confirmed by him in writing within seven days, be deemed to have been given in writing.

No claim for an extra shall be allowed unless it shall have been executed under the provisions of Clause 33 or by the authority of the Engineer with the concurrence of the Museum/Centre as therein mentioned. Any such extra if herein referred to, as an authorized extra shall be governed by Clause 35. No variation i.e. additions or substitutions shall vitiate the contract.

35. PRICE FOR DEVIATIONS

Deviations shall be valued at the net rates contained in the E-tenderers' original e-tender or where the same may not apply direct at rates analogous to the prices therein contained. If the altered, additional or substituted work included any class of work for which no rate is specified in the contract, then the Successful e-tenderer shall within seven days of the date of receipt of the order to carry out the work, inform the Engineer with a copy to the Museum/Centre the rate which he intends to charge for such class of work with proper analysis. In the event of his not doing so, within a reasonable time before the commencement of such work, he shall not be entitled to any allowance or payment in respect of any such extra work. When such notice has been duly given, the Engineer with the consent of the Museum/Centre may agree to such a rate but if the Engineer does not agree to this rate, the Engineer may cancel his order to carry out such class of work and arrange for it to be carried out departmentally or through any other agency or in such a manner as he may consider advisable or he may decide that the Successful e-tenderer shall carry out such items of work and in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him according to such rate or rates as shall be fixed by the Engineer which will, however be subject to the Arbitration Clause.

However, in respect of the rates for extra/new items, if there are any, the opinion of the Engineer as to whether it is an extra item or not, and if so, what rates should be paid shall be final and binding on the successful e-tenderer shall be derived from contract items so far as applicable and the rates which cannot be derived from contract will be fixed on the basis of actual cost of materials and labour, plus 15% as successful e-tenderers' overheads and profits on all trades except on the cost of materials supplied departmentally.

Successful e-tenderer shall not claim any idle and remobilization charge for interim delay due to late decision by the Museum/Centre. Such legitimate interim delays shall however be considered for extension of time, if any.

Furthermore, they shall submit analysis of rates with justifications for claiming extra on any deviation item at least 45 days prior to the probable date of execution of the referred item.

36. MEASUREMENTS

In case of dispute between the successful e-tenderer and the Museum/Centre as to under which item a particular work is to be measured the decision of the Engineer shall be final and binding on both the parties to the contract. If for any items, the mode of measurements is not specified the decision of the Engineer about the mode of measurement shall be final and binding on both the parties to the contract.

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37. PREPARATION OF RUNNING AND FINAL BILLS

Minimum value of work for interim certificate shall be Rs. one lakh (or less at discretion of the Museum/Centre) but not more than one running bill, in a fortnight, if paid separately. 75% advance bill against work done but unmeasured and adjustable fully in the next running bill may be certified by the Engineer, at his discretion in the interest of the work. The Engineer or his representative shall take measurements in presence of Successful e-tenderer's representative and record them in the Measurement Book from time to time and shall prepare abstract for running and final bill, including recovery statements. The bill abstract shall be prepared on standard CPWD form on the basis of abstract of quantities prepared by the Engineer in triplicate. The Successful e-tenderer should sign the bill and Measurement Book with the remark "Measurement and bill accepted". However, in the final bill, the successful e-tenderer shall have to certify – "The bill is accepted in full and final settlement of all claims and demands against this work". In case a large amount is blocked in the final bill pending technical/audit check, advance up to the extent of 75% of net final bill amount may be paid to the successful e-tenderer, with the approval of the Engineer at his direction even after the completion date is over. The recovery from Running Account Bills for the materials issued by the Museum/Centre shall be made on the basis of the quantity consumed in the work as assessed by the Engineer, giving a due allowance for wastage. The Successful e-tenderer shall submit once a month a statement showing the materials received, consumed and the balance carried over to the subsequent month so that a watch could be maintained on the material.

38. CERTIFICATES AND PAYMENTS

- (a) The Engineer may from time to time intimate in writing to the Successful e-tenderer that he requires the works to be measured and they shall attend or send qualified agent to assist the Engineer or the Engineer's representative in taking such measurements, and calculations and to furnish all particulars or to give all assistance required by the Engineer. Should they not attend or neglect or omit to send such agent then the measurement taken by the Engineer or approved by him shall be taken to be correct measurements of the work unless objected to within one month of their being recorded in the measurement book or books. Such measurements shall be taken in accordance with the mode of measurements mentioned in the specifications.
- (b) The Successful e-tenderer or his agents may at the time of measurement take such notes of measurements as they may require.
- (c) The Engineer or his authorized representative will issue on the basis of necessary measurement interim valuation certificates to the Successful e-tenderer in respect of items of work, rates for which exist in the priced schedule of quantities or have been subsequently agreed upon between the parties, and shall send the measurement books and the valuation certificates to the Museum/Centre. The Successful e-tenderer shall be entitled under these certificates of the Engineer to payments, within 15 days from the date of each certificate, unless objected as provided in sub-clauses (a) & (b) at the rate of maximum 90% of the value of work so executed and the balance being retained towards retention money. The engineer shall issue such certificates within fifteen days

- of notice from the Successful e-tenderer provided measurements have been taken and the value of the work done since last payment exceeds the amount stated in the appendix and not more than one certificate is required in a fortnight, provided always that the issue by the Engineer of any certificate during the progress of the work or after their completion shall not have any effect as a certificate of satisfaction or relieve the Successful e-tenderer from his liability under Clause 20 and 21. Provided all defects are removed and the retention money is not forfeited or has not become liable to be forfeited under this contract, retention money shall be refunded after successful completion of defect liability period as per Appendix to NIT which will be from the date of virtual completion of the work or from the date on which final bill is passed for payment, whichever is later.
- (d) All intermediate payments shall be recorded as payments by way of advance against the final payment only and not as payment for work actually done and completed. The final bill shall be submitted by the Successful e-tenderer within 3 months of the date fixed for completion of the work. The measurement of the work taken by the Engineer or his representatives after one week's notice to the Successful e-tenderer shall be final and binding on him unless objected to within one month of their being recorded in the measurement books.
- (e) The Museum/Centre may in consultation with the Engineer, but absolutely at his discretion, make an advance payment on account, which will be merged in the next intermediate payment, based on measurements.
- (f) Advance for materials brought to site: The Successful e-tenderer shall execute a bond in favour of the Museum/Centre in the prescribed format attached hereto for each advance or intermediate payment received by him. If the Successful e-tenderer commits any default in the terms of the said bond and he fails to pay the bond amount, the Museum/Centre shall have the power to:
- (i) Seize and utilize the said materials or any part thereof for the completion of the works.
- (ii) Remove and sell by public auction the materials seized or any part thereof, and out of the proceeds of the sale, retain all sums repayable to the Museum/Centre together with interest thereon at the rate prescribed by Govt. of India from time to time for capital outlays.
- (iii) Deduct all or any part of moneys owing from out of the retention money or any other sum or sums due to the Successful e-tenderer under this agreement.
- (g) The Successful e-tenderer agrees that before final payment shall be made on the contract, he will sign and deliver to the Museum/Centre either in the measurement books or otherwise as required, a valid release and discharge certificate from any and all claims and demands whatever from the Museum/Centre for all matters arising out of or connected with the contract.

39. TIME AND DAMAGES FOR NON-COMPLETION OF WORK IN TIME

- (a) All the construction works shall progress strictly as per the enclosed CPM/PERT/BAR CHART. If, however, the Successful e-tenderer desires some minor modifications in the same he may apply to the Museum/Centre within mobilisation time and before execution of the agreement indicating the reasons for which changes are required. The

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Museum/Centre may after scrutiny, agree to the modifications suggested if the reasons cited by the successful e-tenderer are considered valid. The decision of the Museum/Centre in this respect will be final and binding. The modifications, if any, are to be incorporated in the CPM/PERT/BAR CHART and this will form a part of the agreement.

- (b) The starting time specified for carrying out of the work as entered in the CPM/PERT/BAR CHART shall be reckoned from the date of issue of the Letter of Intent. The date of completion or such date as is duly extended under Clause 40 shall be strictly observed by the Successful e-tenderer. The work shall, throughout the stipulated period of the contract, be proceeded with all diligence (Time being deemed to be the essence of this Contract) by the successful e-tenderer strictly according to the CPM/PERT/BAR CHART which is a part of this agreement.
- (c) At any stage during the execution of the work if the work lags behind the target indicated in the CPM/PERT/BAR CHART for reasons directly attributable to the Successful e-tenderer, he shall be liable to pay as agreed liquidated damages equivalent to half per cent of the total cost of work awarded every week for the period the work lags behind the CPM/PERT/BAR CHART subject to a maximum of 10% of the total value of work, awarded or gross value of work done, whichever is greater.
- (d) In the event of Successful e-tenderer's inability to complete the construction work by the scheduled date of completion, the Museum/Centre shall have the right to terminate the contract as per Clause 42 or allow the successful e-tenderer to continue and complete the work within specific date. In the latter case, during the period of continuation, the successful e-tenderer shall pay as agreed liquidated damage equivalent to one per cent of the total cost of work awarded for every week that the work remains unfinished subject to a maximum of 10% of the total value of work awarded or gross value of work done, whichever is greater.

40. EXTENSION OF TIME

If the successful e-tenderer shall desire an extension of time for completion of the work on the grounds of his having been unavoidably hindered in its execution and for reasons not attributable to him on the following grounds: -

- (a) by reason of any exceptionally inclement weather like Cyclone, severe flood etc., normal monsoon shall not be considered a valid reason for extension of time,
- (b) by reason of proceedings taken or threatened by, or legal disputes with adjoining or neighbouring owners,
- (c) due to delay in the work of other agencies or tradesman engaged or nominated by the museum/centre: if such delay is directly responsible for delay in execution of this work,
- (d) by reason of any general strike or lockout affecting the building made, strike or any kind of labour trouble in successful e-tenderer's own organisation shall not be a valid reason for extension,
- (e) in the event of delay in execution of work wholly attributable to delay in supply of drawings by Architect or Museum/Centre in spite of request from the successful e-tenderer well in advance, he shall apply in writing to the Engineer within seven days of the date of the hindrance on account of which he desires such extensions as aforesaid

- and the engineer, with the consent of the Museum/Centre may if reasonable ground be shown therefore allow such extension of time, if any, be necessary or proper,
- (f) in case of the total value of the work exceeds the total value of the e-tender owing to deviation in quantities or extra items, the successful e-tenderer will be entitled to ask for extension of time in proportion to the increased value of work. Increase in value of work due to escalation as per Clause 30 shall not be a valid reason for extension of time.
- (g) No extension of time shall be given to the successful e-tenderer for non-supply or delay in supply of cement and/or steel as per Clause 56. The successful e-tenderer hereby agrees that extension of time requested for by him and granted by the Museum/Centre shall be treated as an extension of time allowed to them without any claim for compensation or damages for any reasons whatsoever including those for which the extension is granted.

If an extension of time is granted by the Museum/Centre for reasons of delay not attributable to the successful e-tenderer as indicated above, then the escalation clause will remain in force and the successful e-tenderer will be entitled to receive extra payments for variation in prices and wages subject to the ceiling limit of 20% of the total value of work as indicated in Clause 30.

However, the museum/centre in the interest of work is, allows any extension of time for reasons of delay directly attributable to the successful e-tenderer, the escalation clause (Clause 30 of conditions of contract) will not remain in force during such extended period.

41. SUSPENSION OF WORK BY THE SUCCESSFUL E-TENDERER

If the successful e-tenderer suspends the works without obtaining extension of time or in the opinion of the Engineer neglects or fails to proceed with due diligence in executing his part of the contract or if he makes default more than once in the manner mentioned in Clause 20 above the Museum/Centre or the Engineer shall have power to give notice in writing to the successful e-tenderer requiring that the works be proceeded with reasonable speed and output must be commensurate with the CPM/PERT/BAR CHART. Such notice shall specify the act of default on the part of the successful e-tenderer. After such notice has been given the Successful e-tenderer shall not be at liberty to remove from the site of work or from any ground continuous thereto any plant or materials belonging to him which had been placed thereon for the purpose of the work, and the Museum/Centre shall have a lien upon all such plants and materials to subsist from the date of such notice being given, until the notice have been complied with. Provided always that such lien shall not under any circumstances subsist after the expiration of thirty-one days from the date of such notice being given, unless the Museum/Centre has entered upon and taken possession of the works and site and of all such plants and materials until the works have been completed under the power hereinafter conferred upon it. If the Museum/Centre exercises the above power it may engage any other agency to complete the works or finish the works departmentally and exclude the successful e-tenderer, his agents and servants from entry upon or access to the same except that the successful e-tenderer or any one person appointed in writing by him and accepted by the Museum/Centre may have access at all

reasonable times during the progress of works to inspect, survey and measure the works. Such written appointments marked with Museum/Centre's consent or a copy thereof shall be delivered to the Engineer before the person so appointed comes to the works. The Museum/Centre shall take such steps as, in the opinion of the Engineer may be reasonable and necessary for completing the works without undue delay & expense, using for that purpose the plants and materials above mentioned, in so far as they are suitable and adopted to such use. Upon the completion of the works the Engineer shall certify the amount of expenses properly incurred, consequent on the incidental to the default of the successful e-tenderer as aforesaid, in completing the works by other persons. Should the amount so certified as the expenses properly incurred, including Museum/Centre's overhead if the works were carried out departmentally, be less than the amount which would have been due to the Successful e-tenderer upon the completion of the works by him, the difference shall be paid to the Successful e-tenderer by the Museum/Centre. Should the amount of the former exceed the later, the difference shall be paid by the Successful e-tenderer to the Museum/Centre. The Museum/Centre shall not be liable to make any further payment or compensation to the Successful e-tenderer for or on account of the proper use of the plants for the completion of the works under provisions hereinbefore contained other than such payment as is included in the contract price. After the works have been so completed by persons other than the successful e-tenderer under the provisions hereinafter contained, the Museum/Centre shall give notice to the Successful e-tenderer of such completion and may require him from time to time, before and after such completion, to remove his plants and likewise all such materials as aforesaid as may not have been used in the completion of the works, from the site. If such plants and materials are not removed within such reasonable time, the Museum/Centre may remove and sell the same, holding the proceeds, less the cost of the removal and sell, to the credit of the successful e-tenderer. The Museum/Centre shall not be responsible for any loss sustained by the successful e-tenderer from the sale of plants in the event of the successful e-tenderer not removing it after notice, or for any damage thereto or deterioration thereof in any event.

42. DETERMINATION OF CONTRACT BY THE MUSEUM/CENTRE

If the successful e-tenderer goes into liquidation, whether voluntary or compulsory or shall make an assignment or a composition for the benefit of the greater part, or shall enter into a Deed of Agreement with its creditors or if the Receiver of the Successful e-tenderer shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Museum/Centre that he is liable to carry out and fulfil the contract and if so required by the Museum/Centre to give reasonable security therefore or if the successful e-tenderer shall suffer execution to be issued or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors or the Successful e-tenderer or shall assign, charge or encumber this charge or encumber this contract thereunder or shall neglect or shall fail to proceed to perform all or any of the act, matters or things by the contract, to be observed and performed by the successful e-tenderer for three clear days after written notice shall have been given the successful e-tenderer in manner, matter hereinafter mentioned, requiring the successful e-tenderer to observe

perform the same or shall use improper material or workmanship in carrying on the works or shall in the opinion of the Engineer not exercised such due progress as stipulated in the enclosed CPM/PERT/BAR CHART forming part of this contract which would enable the works to be completed within the time agreed upon or shall abandon the contract, then, and in any of said cases, the Museum/Centre may notwithstanding any previous waiver, determine the contract by a notice in writing in which case the retention money (including the earnest money and the initial security deposit) and whether paid in one sum or deducted by instalment shall stand forfeited and be absolutely at the disposal of the Museum/Centre. The Successful e-tenderer shall have no claim or compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made advances on account of or with a view to the execution of the work or the performance of the contract. The successful e-tenderer shall not be entitled to recover or be paid any sum for any work actually performed under the contract unless and until the Engineer will have certified in writing the performance of such work and the value of work payable in respect thereof and the successful e-tenderer shall only be entitled to be paid the value so certified. The certificate of the Engineer shall be based on measurements taken by him or under his supervision and with due notice to the Successful e-tenderer and on rates in the priced schedule or as subsequently communicated by the Engineer with the approval of the Museum/Centre, under this agreement except for arithmetical errors, shall be final and conclusive. The Successful e-tenderer must remove his plant, materials, scaffolding etc. from the site within 10 days (ten days) of the receipt of the notice from the Museum/Centre after which they will vest in the Museum/Centre who may, dispose them off as per Clause 41 by sale or auction on account of and at the risk of the successful e-tenderer who will have no claim for loss or compensation on this account.

43. TERMINATION OF CONTRACT BY SUCCESSFUL E-TENDERER

If payment of the amount payable by the Museum/Centre under the certificate of interim payment issued by the Engineer in accordance with clause 38 shall be in arrears and unpaid for sixty days after notice in writing requiring payment of the amount shall have been given by the Successful e-tenderer to the Museum/Centre in manner hereinafter mentioned or if works be stopped for six months under the order of the Museum/Centre for any reason not connected with any default on the part of the Successful e-tenderer or by any injunction or other order of any court of law made for any reasons not connected with any such default on the part of the successful e-tenderer then and in any of the said cases the successful e-tenderer shall be at liberty to terminate the contract by notice in writing to the Museum/Centre and he shall be entitled to recover from the Museum/Centre payment for all works executed and for useful materials (but not plants) purchased for the purpose of the contract and is brought to the site. In arriving at the amount of such payment, the net rates contained in the successful e-tenderer's e-tender shall be followed, or where the same may not apply, rates proportional to the prices therein contained. Rates for materials may be determined by the Engineer on actual vouchers produced by the successful e-tenderer and/or prevailing market rates at the discretion of the Engineer. The Successful e-tenderer shall not be entitled to recover or be paid any sum for any work actually performed under the contract, unless and until the Engineer has certified in writing the performance of such

work and the value payable in respect thereof and the successful e-tenderer shall only be entitled, to be paid the value so certified. The certificate of the Engineer shall be based on measurements taken by him or under his supervision after due notice to the successful e-tenderer and shall be final and conclusive except for arithmetical errors. The successful e-tenderer must remove his plant, materials, scaffolding etc. from the site within ten days or such time as may be extended by the Museum/Centre in writing, from the receipt of the notice from the Museum/Centre after which they will vest in the Museum/Centre who may dispose them off as per Clause 42 by sale or auction on account of and at the risk of the successful e-tenderer who will have no claim for loss or compensation on this account.

44. ARBITRATION

- (a) Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawing, and instructions hereinbefore mentioned and so to any question, claim right, matter or thing whatsoever, in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution of the same whether arising during the progress of the work or after the completion or abandonment thereof but excluding disputes on material and workmanship as per Clause 17 & 18 which is binding on both parties, shall be referred to the sole arbitration of a person nominated by the Director General, National Council of Science Museums and if the former is unable or unwilling to act to the sole arbitration, of some other person appointed by the Director General, NCSM willing to act as such arbitrator. The submission shall be deemed to be submission to Arbitration under the meaning of the Arbitration & Reconciliation Act, 1996 or any statutory modification or re-enactment thereof for the time being in force. The award of arbitrator so appointed shall be final, conclusive and binding on all parties to this contract.
- (b) It is agreed that the Successful e-tenderer shall not delay the carrying out of the work by reasons of any reference to arbitration and shall proceed with the work with all due diligence and shall, until the decision of arbitration, abide by the decision of the Engineer duly conveyed to him.
- (c) The Arbitrator(s) may from time to time with the consent of the parties, extend the time for making and publishing the award.

45. COMPENSATION

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

46. WORK ON HOLIDAYS

Successful e-tenderer shall not carry out work on any Government holidays except with the permission of the Engineer. The contract period will be inclusive of such holidays.

47. WORK SUPERVISOR AND FOREMAN

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The Successful e-tenderer shall keep a qualified and experienced Engineer for supervision of works to ensure best quality work. He shall also give all necessary personal superintendence during the execution of the works and as long thereafter as the Engineer may consider necessary until the expiration of the 'Defect Liability Period' stated in Clause 20 above. The Successful e-tenderer shall also during the whole time, the works are in progress, employ competent Foreman approved by the Engineer whose qualification must conform to the requirements specified by the Engineer. In special cases he shall be constantly in attendance of the building while the men are at work. Any directions, explanations, instruction or notices given by the Engineer to such Foreman shall be held to be given to the Successful e-tenderer.

48. DISMISSAL OF WORKMEN ETC.

The Successful e-tenderer shall on the request of the Engineer immediately dismiss from the works any person employed thereon who may, in the opinion of the Engineer be unsuitable or incompetent or who may in the opinion of the Museum/Centre or the Engineer misconduct himself and such person shall not be again employed or allowed on the works without the written permission of the Engineer and/or the Museum/Centre.

49. ASSIGNMENT OR SUBLETTING OR BRIBES

- (a) This contract shall not be assigned or sublet without the written approval of the Museum/Centre. If the Successful e-tenderer shall assign or sublet this contract, or attempts to do so or become insolvent or commence insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, pre-requisite award, reward or advantage pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the Successful e-tenderer, any of his servants or agents to any officer of the Museum/Centre or to persons who shall become in any way directly or indirectly interested in the Contract, the Museum/Centre may thereupon by notice in writing rescind the contract and the retention money of the Successful e-tenderer shall thereupon stand forfeited and be absolutely at the disposal of the Museum/Centre, and the same consequences shall ensue as if the contract had been rescinded under Clause 42 thereof and (in addition) the Successful e-tenderer shall not be entitled to recover or to be paid for any work therefore actually performed under the contract.
- (b) The whole of the works including the contract shall be executed by the Successful e-tenderer and he/they shall not directly or indirectly transfer or assign or underlet the contract or any part, share or interest therein nor shall he take a new partner without the written consent of the Museum/Centre and no subletting shall relieve the Successful e-tenderer from the full and entire responsibility of the contract or from active superintendence of the works during the progress.

50. OTHER PERSONS ENGAGED BY MUSEUM/CENTRE

The Museum/Centre reserves the right to use the premises and any portion of the site for the execution of any work not included in this contract, which he may desire to have carried out by other persons, and the successful e-tenderer shall allow all

reasonable facilities for the execution of such work, but is not required to provide any plant or materials for the execution of such works except by special arrangement with the Museum/Centre.

51. OTHER AGENCIES AND PROVISIONAL SUMS

- (a) The Successful e-tenderer is to afford all reasonable facilities to all other agencies, sub-agencies, specialists, merchants, tradesman and others who may at any time be appointed by the Engineer with the consent of the Museum/Centre for executing any work or supplying any goods relating to the constructions, servicing, equipping or furnishing of the building under construction or in the compound. In case of delay in completion of his work due to other agencies' work, the Successful e-tenderer shall only have a right to ask for extension of time but no other claim on this or any other account shall be entertained by the Museum/Centre.
- (b) If any provisional sum is included in the bill of quantities they are to be deducted wholly if not required or in part the Museum/Centre reserves to itself the right to appoint any agency to do the work allowed for in provisional sums and the successful e-tenderer shall not have any right to claim any profits on this account.

52. LABOUR WAGES AND REGULATIONS

Notwithstanding any contained in the conditions of this contract the Successful e-tenderer shall comply with the provision of the contract labour (Regulation & Abolition) Act 1970 and various rules framed thereunder by different State Government, in respect of all labourers directly or indirectly employed by the Successful e-tenderer in the works through labour contracts or otherwise the Successful e-tenderer shall be considered as "Principal Employer".

The Successful e-tenderer agrees to grant Provident Fund benefits in accordance with Employees Provident Fund Act 1962 and Scheme thereunder to his workers. The successful e-tenderer shall pay not less than "fair wages" to labourers engaged by him on the work. No labour below the age of fourteen years shall be employed. The successful e-tenderer shall at his own expense provide or arrange for provision of footwear for any labour doing cement mixing work.

53. INSURANCE FOR DAMAGE TO PERSONS AND PROPERTY

- (a) The Successful e-tenderer shall be responsible for all injury to persons, animals or things and for all damages to property, structural and decorative, whether such injury or damage arise from carelessness or accident or in any way connected therewith. This clause shall be held to include, inter alia, any damage due to causes as aforesaid to buildings (whether immediately adjacent or otherwise) and to roads, streets, footpaths, bridges or ways as well as all damage caused to the buildings and works forming the subject of this contract by the inclemency of weather. The Successful e-tenderer indemnifies the Museum/Centre and holds him harmless in respect of all expenses arising from such injury or damage to persons or property aforesaid and also in respect of any claim made in respect of injury or damages consequent upon such claim.

- (b) The successful e-tenderer shall reinstate all damage of every sort mentioned in this clause, so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good and otherwise satisfy all claims for damage as aforesaid to the property or third parties.
- (c) The Successful e-tenderer also indemnifies the Museum/Centre against all claim which may be made upon the Museum/Centre during the currency of this contract by any employee or representative of an Employee of the agency, or any sub-agency, employed by him, for any injury to or loss of life or such employees, or for compensation payable under any law for the time being in force to any workman or to the representative of any deceased or incapacitated workmen.
- (d) The Successful e-tenderer also indemnifies the Museum/Centre in respect of any costs, charges and/or expenses, including legal costs as between Solicitor and client, occurring out of any award of compensation and/or damages consequent upon such claims.
- (e) The Museum/Centre shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation cost, charges and/or expenses arising or ascertaining from or in respect of any such claim and/or damages as aforesaid from any sum, or sums due to, or become due to the Successful e-tenderer.

54. NOTICE

Notice for the Museum/Centre, the Engineer or the Successful e-tenderer may be served personally or sent by registered post addressed to the office of the Museum/Centre or the last known place of business of the Engineer and the Successful e-tenderer or in the case of the successful e-tenderer also be being left on the works. Any notice sent by registered post shall be deemed to be served at the time when in the ordinary course of post, it would be delivered.

55. APPOINTMENT OF APPRENTICES AS PER APPRENTICES ACT

The Successful e-tenderer shall during the currency of the contract when called upon by the Engineer engage and also ensure engagement by sub-agencies and other employed by the successful e-tenderer with the works such number of apprentices in categories mentioned below and for such periods as may be required by the Engineer. The Successful e-tenderer shall train them as required under the Apprentices Act 1961 and the Rules made thereunder and shall be responsible for all obligations of the Museum/Centre under the said act including the liability to make payments to apprentices as required under the said Act.

(a) In Respect of Civil works

- (i) Brick Layer : One apprentice for every 7 person engaged in this category
- (ii) Building Construction : One apprentice for every 7 persons engaged in this category
- (iii) Carpenter : One apprentice for every 7 persons engaged in this category
- (iv) Surveyor : One apprentice for every 14 persons

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engaged in this category

(b) In respect of Sanitary and Water Supply

Plumber : One apprentice for every 2 persons engaged in this category

(c) In respect of Electrical Works

Wireman : One apprentice for every 7 persons engaged in this category

The Successful e-tenderer shall comply with the provision of Apprentices Act 1961 and Rules and Orders issued hereunder from time to time.

If the Successful e-tenderer fails to do so, his failure will be deemed to be a breach of contract and the Museum/Centre reserves the right to cancel the contract. The Successful e-tenderer also shall be liable to any pecuniary liability arising on account of any violation by him of the provisions of the Act.

56. CEMENT & STEEL (for civil works only) – Not applicable as no materials shall be supplied departmentally.

~~Steel and Cement shall be supplied by the Museum/Centre to the Successful e tenderer as stated in appendix to the NIT. If for any reason cement and steel is not available, the Successful e tenderer shall procure the same and complete the work in time after due intimation of the same to the Engineer. The quantities brought by the Successful e tenderer would be replenished to the Successful e tenderer at issue rates given in appendix when received, during or after completion of work but before payment of final bill. It shall be the Successful e tenderer's sole responsibility to ensure that the quality of cement so brought conforms to required standard as specified and support this with Test Certificate for such consignments brought by him and allowed on the works by the Engineer. If steel of required diameters is not available but the Successful e tenderer could get substituted diameters by exchanging available diameters, in the interest of work, such an exchange would be authorised with the permission of the Engineer but without any extra cost to Museum/Centre. Successful e tenderer's rates shall be deemed to have been based on issue rates of cement and steel given in the appendix sheet of e tender and they shall have to use materials issued departmentally as per appendix.~~

~~Successful e tenderer shall not refuse to receive marginal excess of cement and steel, quantities over and above as shown in the phased programme, if required so as and approved by the Engineer and such storage shall be without any extra cost to the Museum/Centre.~~

~~Receipt of cement and steel from the Museum/Centre's store should be carried out in quickest possible time by the Successful e tenderer as a bulk supply, once the issue of stores is commenced at site, and without hampering the progress of the work at site.~~

~~Receipt of stores will include submitting indent in duplicate to the Museum/Centre at least two days prior to intended date of receipt. No stores shall be issued on Sundays and Holidays.~~

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57. REGARDING WEIGHT OF MATERIALS SUPPLIED BY THE MUSEUM/CENTRE (for civil works only)- Not applicable

~~When cement is issued in bags, 5% variation in its weight shall be deemed to have been allowed for loss in handling. Each bag shall be deemed to weigh 50 Kg. The successful e-tenderer shall ensure that the correct quantity and only good quality cement is used on the works.~~

~~For reinforcement steel (mild or tor rounds, the weight for issue purpose and recoveries of cost thereof, shall be the actual weight i.e. R.R (Railway Receipt) weight or mill scale weight if supplied by wagon direct or truck weigh bridge weight recorded at producer's works or supplier's stockyard if delivery is by road.~~

~~If steel is issued from the Museum/Centre's store the successful e-tenderer should arrange for necessary labour for weighment and shifting, loading etc. without any extra cost to the Museum/Centre. Steel may, alternatively, be issued by measurement of lengths (for which labour will be arranged by the successful e-tenderer, at his cost) multiplied by standard coefficients. However, the cost of issued steel will be recovered on the basis of weights indicated in the R.R. (Railway Receipt) or weigh bridge challans issued by the concerned authority owning the weigh bridge. Cost of recoveries of steel will be on the basis of weight recorded on the approved Weigh bridge challan irrespective of the method of measurement of steel on the works. It shall be the sole responsibility of the Successful e-tenderer to use appropriate diameter of rods for reinforcement in different structural components in accordance with the drawings and any damage to the structural members for non-conformation to specifications and drawings shall be made good by the successful e-tenderer without any extra cost to the Museum/Centre. Since payment for steel would be made on basis of standard co-efficient on length, the successful e-tenderer should ensure that each dia of rods issued conform to standard co-efficient, and in case it is not, he should at once report to the Engineer and get standard co-efficient established for specific diameter and specific quantity. Weight of steel shall be measured correct to three decimal places. Standard co-efficient will be established in presence of (a) Successful e-tenderer's representative (b) stores officer or his representative (c) the Engineer.~~

~~Steel issued by the Museum/Centre as stated in appendix sheet shall mean mild steel rounds and tor steel to be used exclusively for RCC works. Steel for holdfasts, squares, flats, etc. are to be procured by the Successful e-tenderer.~~

58. RETURN OF STEEL (for civil works only)- Not applicable

~~While receiving the surplus steel back from the successful e-tenderer after the end of the project, the Museum/Centre shall not accept cut pieces less than 3 meters of length. The Successful e-tenderer should take care while cutting rod that the wastage is minimum i.e. he should cut required lengths in such a way that maximum steel is used out of quantity supplied or as directed at site by the Engineer. Variation over 5% will be allowed by the Engineer, if he is satisfied about abnormal wastage.~~

59. CEMENT CONSUMPTION (for civil works only)- Not applicable

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~~If the actual consumption of cement is more (upto 5% over theoretical consumption) or less (upto 5% below theoretical consumption) no additional recovery shall be made from the Successful e tenderer. If the actual consumption exceeds 5% over the theoretical consumption, successful e tenderer shall have to return the surplus cement issued over 5% allowable margin and if he fails to do so, recovery for excess cement shall be made at issue rate or market prevailing on completion date whichever is higher in lieu of issue rate. If however the Engineer is satisfied that excess cement over 5% has actually been used in the work including rectification and dismantled work, and that it has not been removed by the successful e tenderer from site nor used wastefully, he may allow excess over 5% by waiving recovery at higher rate and his decision in this regard shall be final and binding. If the cement used is less than 5% and the work is of acceptable standard, recovery for cement less used shall be made at issue rates + 15% successful e tenderer's overheads and profits after allowing 5% variation. C.P.W.D. Cement constants will be used for calculating theoretical cement consumption. 10% excess of cement consumption on hand mixed concrete, if hand mixing is permitted by the Engineer due to any reason, shall not be recovered from the successful e tenderer, unless such consumption is due to the successful e tenderer's faulty equipment.~~

60. CONCEALED R.C.C. BEAMS/LINTELS (for civil works only)

If in R.C.C. slab extra bars or steel cage is provided to act as a lintel or beam over an opening, the same will be measured as slab and not as beam/lintel. If in case of R.C.C. wall, extra bars or steel cage is provided to act as a lintel or beam over an opening, the same will be measured as wall and not as lintel/beam. R.C.C. column integrated in shear wall shall be measured as wall if of same thickness, and as R.C.C. column if its thickness is more than that of shear wall.

61. PROJECTION (for civil works only)

Slab projection from the face of wall/column shall be measured under item R.C.C. work in slabs and not under item R.C.C. work in Chajjas.

62. DRIP GROOVE (for civil works only)

The Successful e-tenderer shall provide drip groove at all ends of slabs/lintels/beams, if required, to protect rain water from entering inside the boundary of the structure, within quoted rates of R.C.C. work.

63. PLASTERING ON RCC SURFACE (for civil works only)

Wherever R.C.C. surface is to be plastered to bring it in line with the brick and/or stone wall plaster of the same mix, payment for such plaster, will be made under the item of plastering only irrespective of the fact whether there is any increase due to odd or even surface of brick or stone work below and/or adjoining it.

64. M.S. REINFORCEMENT (for civil works only)

Rate quoted for placing in position and fabrication of mild steel/ribbed tor/TMT steel reinforcement should include for straightening and cleaning including removing the rust of

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the bars at works site, cutting, cranking, hooking hoisting at required levels, cost of providing binding wire of 18 to 20 SWG etc. complete and no separate payment will be made on this account. Payment for reinforcement, however, to be considered on the basis of measurement as per drawing plus standard laps actually provided at site, plus chairs and spacing bars allowed by the Engineer.

65. BRICK WORK (for civil works only)

Rate shall include for tapering of bricks over column footings, over walls, steps, etc. and for exposed brick work, or any other work. Rate for brick work also includes work in pillars and small horizontal courses.

66. BRICK WORK(S) HEIGHTS/DEPTHS (for civil works only)

The height or width of foundation steps and superstructures will be measured as per actuals. The successful e-tenderer shall use suitable bricks and adjust the thickness of mortar joints to make up the widths or heights as per drawings, with due regard to size of brick available.

67. EARTHWORK

The measurements of earthwork in trenches for foundation, sewer lines etc. shall be made according to the section of trenches shown on the drawing. The successful e-tenderer shall include in his rate excavating for stepping and slopping back, working space for workmen as found necessary on account of condition of soil. Excavation so made in excess shall not be measured & paid for.

68. FORCE MAJEURE

In the event of either party being rendered made by Force Majeure to perform any obligation required to be performed by them under the contract, the relative obligation of the party affected by such Force Majeure shall be suspended for the period during which such cause lasts. The term “Force Majeure” as employed herein shall mean acts of God, War, Civil Riots, Fire directly affecting the performance of the contract, Flood and Acts and Regulations of respective government of the two parties namely the M/s -----and NCSM. Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid thereby, shall notify the other party in writing, the beginning of the causes amounting to Force Majeure as also the ending of the said clause by giving notice to the other party within 72 (Seventy-two) hours of the alleged beginning and ending of the cause respectively. If performance under this agreement is suspended by Force Majeure conditions lasting for more than two months, either party shall have the option of cancelling this agreement in whole or part at its discretion without any liability on its part. Time for performance of the relative obligation suspended by Force Majeure shall stand extended by period for which such cause lasts.

FORMAT FOR BANK GUARANTEE BOND

(For EMD only)

2. In consideration of the (Name and address of the Museum/Centre) hereinafter called the Museum/Centre having stipulated under clause 16 of the Notice Inviting E-tender No. for the work of (mention name of work as in NIT) at the aforesaid site agreed to accept payment of Earnest Money for due fulfillment of the terms and conditions contained in the said NIT (including appendix) for participation in the e-tender from (Name and address of the prospective e-tenderer) (hereinafter called the prospective e-tenderer) by production of a bank guarantee of (Mention amount of EMD in figure & words) only, we (Name and address of Bank furnishing guarantee (Br. Code)) (hereinafter referred to as "The Bank") do hereby undertake to pay to the Museum/Centre an amount not exceeding (mention EMD amount in figure & Words) only against any loss or damage caused to or suffered or would be caused to or suffered by the Museum/Centre by reasons of any breach by the said prospective e-tenderer of any of the terms or conditions contained in the said NIT (including appendix) relating to participation in the e-tender.
3. We, (Name of Bank), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Museum/Centre stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Museum/Centre under National Council of Science Museums by reasons of any breach by the said prospective e-tenderer of any of the terms or conditions contained in the said NIT (including appendix) or by reason of the prospective e-tenderer's failure to comply with conditions contained in the said NIT relating to participation in the e-tender. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee, shall be restricted to an amount not exceeding (mention amount of EMD in figures and words) only.
4. We, (Name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period as mentioned in Clauses 26 and 27 of the said NIT (including appendix) or the period stipulated under clause 28 for deciding the e-tender and that it shall continue to be enforceable till the dues of the Museum/Centre under or by virtue of the said NIT (including appendix) have been fully paid and its claims satisfied or discharged or the Museum/Centre certified that the terms and conditions of the said NIT (including appendix) have been fully and properly honoured and carried out by the said prospective e-tenderer for participation in the e-tender and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the periods stipulated above, we shall be discharged from all liability under this guarantee thereafter.
5. We, (Name of the Bank) further agree with the Museum/Centre that they shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to extend time of deciding the e-tender as may be expedient and to forbear or enforce any of the terms and conditions relating to the NIT (including appendix) and we

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shall not be relieved from our liability by reason of any such extension being granted to the said proposed e-tenderer for any forbearance, or act of omission on the part of the Museum/Centre or any indulgence by the Museum/Centre to the said proposed e-tenderer or by any such matter or thing whatsoever which under the law relating to surety.

6. We, (Name of the Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Museum/Centre in writing.

Dated, the day of

For

(Authorised signatory of the Bank with Seal)

FORMAT FOR BANK GUARANTEE BOND *
(For Performance Guarantee/Retention Money only)

1. In consideration of the
..... (hereinafter called “The
Museum/Centre”) having agreed to exempt
.....

(Hereinafter called the “successful e-tenderer’ from the demand, under Clause 16 of the
Notice inviting E-tenderNo. dated
..... and/or the terms and conditions of an Agreement dated
..... Made between the Museum/Centre and successful e-
tenderer(s)
for(hereinafter called “the
said agreement”) of Earnest Money/Retention Money for the due fulfillment by the said
Contract(s) of the terms and conditions contained in the said NIT or the conditions of
(execution of work) or the agreement on production of a bank guarantee of
Rs.....(Rupees

..... only), We
.....(hereinafter referred to as “The Bank”)
do hereby undertake to pay to the Museum/Centre an amount not exceeding
Rs..... against any loss or damage caused to or
suffered or would be caused to or suffered by the Museum/Centre by reasons of any breach
by the said successful e-tenderer of any of the terms or conditions contained in the said
NIT, the conditions of Contract or the Agreement.

2. We, do hereby undertake to pay the
amounts due and payable under this guarantee without any demur, merely on a demand
from the Museum/Centre stating that the amount claimed is due by way of loss or damage
caused to or would be caused to or suffered by the Museum/Centre under National Council
of Science Museums by reasons of any breach by the said successful e-tenderer of any of
the terms or conditions contained in the said NIT or the conditions of contract or the
Agreement or by reason of the successful e-tenderer’s failure to perform as per conditions
contained the said NIT or the condition of contract or the Agreement. Any such demand
made on the Bank shall be conclusive as regards the amount due and payable by the Bank
under this guarantee. However our liability under this guarantee shall be restricted to an
amount not exceeding Rs.....

*Note:

(Bank guarantee bond towards Retention Money/Security deposit as defined under clause
32 of the General Conditions of contract at the time of signing of agreement on award of
work acceptable only if furnished by any of the Nationalised Banks.)

3. We, further agree
that the guarantee herein contained shall remain in full force and effect during the period as

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Delhi

mentioned in Clause 26 & 27 of the said NIT read with clause 32 of the conditions of contract, or the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till the dues of the Museum/Centre under or by virtue of the said NIT or the conditions of contract or the Agreement have been fully paid and its claims satisfied or discharged or the Museum/Centre certified that the terms and conditions of the said NIT or the conditions of contract or the Agreement have been fully and properly honoured and carried out by said successful e-tenderer and accordingly discharges the guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the

We shall be discharged from all liability under this guarantee thereafter.

4. We, further agree with the Museum/Centre that they shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said successful e-tenderer from time to time or to postpone for any time or from time to time any of the powers exercisable by the Museum/Centre against the said successful e-tenderer and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said successful e-tenderer for any forbearance, or act of omission on the part of the Museum/Centre or any indulgence by the Museum/Centre to the said successful e-tenderer or by any such matter or thing whatsoever which under the law relating to surety.
5. We,lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Museum/Centre in writing.

Dated, the day of

For
(Authorised signatory of the Bank with seal)

FORMAT FOR LETTER OF INTENT*

..... Date
(Mention file number)

Sub: Letter of Intent for the work of

Dear Sirs,

With reference to your e-tender dated(and further clarification vide letter number dated) # it is intended to award the aforesaid work at the e-tendered amount of Rs.....

(Value based on only items of work intended to be awarded for execution)

You are, therefore, requested to sign an agreement as per standard format already printed in the e-tender documents purchased by you while e-tendering for this job. For this purpose, you are requested to send us a non-judicial stamp paper of appropriate value for preparing the contract Agreement within a week from the date of this letter.

You may avail of 07days mobilization time from the date of issue of this letter of Intent for mobilizing your men, materials and other necessary resources for the construction. During mobilization period, you are requested to study all the drawings and designs annexed hereto and the Bar-Chart and obtain clarifications from the architect or this office immediately.

Please note that the work has to be completed within weeks/months in which mobilization time period of 15 Days days is also included. The date of commencement of work would be reckoned as the date of issue of this letter (as per clause 10 (v) & 26 of NIT).

Thanking you,

Yours faithfully,

Sd/-

Controller of Administration

Letter of intent is to be issued in the letter head of the parent Museums/Centers and a Xerox copy is to be maintained as office copy on which signature of the authorized representative of the successful e-tenderer is to be obtained with date at the time of issue of original letter of intent. # Delete words within brackets if not applicable in specific case.

**FORMAT FOR ARTICLES OF AGREEMENT
INSTRUCTIONS (not to be typed in Agreement)**

(Articles of Agreement have to be typed on non-judicial stamp paper. The value of the stamp paper varies from state to state and is to be known from the particular place. The stamp paper will be purchased by the successful e-tenderer and the agreement may be typed by the Museum/Centre according to the format.)

ARTICLES OF AGREEMENT made at

.....
(Place)

this..... day of

.....
(Date) (Month & Year)

between the

.....
(Name of the parent Museum/Centre)

(under the National Council of Science Museums, a Society registered under the Societies Registration Act of West Bengal, 1961), hereinafter referred to as the Museum/Centre which expression shall include its successors and assigns on the one part

and.....

.....
.....
(name of the successful e-tenderer)

trading in the name and style of

.....
.....
(Name and complete address of the successful e-tenderer)

hereinafter referred to as the successful e-tenderer which expression shall include his/their respective heirs, executors, administrators and assigns on the other part.

WHEREAS the Museum/Centre is desirous of getting the work of

.....

..... therein done and has caused

.....
(Name of the work)

Notice Inviting E-tender (Including appendix), drawings, schedule of quantities and specifications describing the work and conditions of contract to be prepared

by.....

.....
(Name and address of the Architect).

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AND WHEREAS the said NIT (including appendix) drawings as per list attached, specifications and the priced schedule of quantities and conditions of contract have been signed by or on behalf of the parties hereto. AND whereas the Successful e-tenderer has deposited in Cash or Bank Draft a sum of Rupees

.....
(exact amount in words)

the amount being 2.5% of the estimated value of the e-tender rounded off to the nearest hundred) with the Museum Centre as Initial Security for the due performance of this Agreement as provided in the said conditions. In the case of Bank Guarantee, the period of Bank Guarantee referred to being valid until the defect liability period as specified in e-tender and to be revalidated to required dates as demanded by the Museum/Centre if completion date is extended.

NOW IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. In consideration of the payments to be made to him as hereinafter provided the successful e-tenderer shall upon and subject to the conditions herein contained execute and complete the work within months from the date of issue of letter of intent (as defined under NIT clauses 10 (i) and 21) and as per the said drawings and such further detailed drawings as may be furnished to him from time to time and described in the said specifications and the said priced schedule of quantities along with the progress of the building work.
2. The Museum/Centre shall pay to the successful e-tenderer such sum as shall become payable hereunder at the time and in the manner specified in the said conditions.
3. Time is the essence of this agreement and the successful e-tenderer shall proceed with the work, throughout the stipulated period of this contract, strictly according to the CPM/PERT/BAR CHART attached herewith and forming a part of this agreement. At any stage during execution, if any work lags behind the target as indicated in the CPM/PERT/BAR CHART for reasons directly attributable to the successful e-tenderer, he shall pay or allow the Museum/Centre to deduct from any money due to him a liquidated damage as per Clause 39 of the conditions of contract.
4. This agreement comprises the work above and all subsidiary works connected therewith, even though such works may not be shown on the drawings, or described in the said specifications or the priced Schedule of Quantities.
5. The Museum/Centre through the Engineer (As defined under clause 2 of General conditions of contract) reserves to itself the right of altering the drawings and of adding to or omitting any item of work or of having portions of the same carried out departmentally or otherwise and such alterations or variations shall not vitiate this agreement.

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6. All disputes and differences of any kind whatever except as excluded under Clause 2 of General Conditions of contract appended herewith, arising out of or in connection with the contract on the carrying out of works (Whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach of the contract) shall be referred to arbitration as per Clause 44 of the said conditions of contract. In case of any legal dispute, other than the arbitration, the court of jurisdiction shall be at the place written in the first line of this agreement.

The provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or re-enactment thereof and of the rules made there under for the time being in force shall apply to arbitration proceedings under this clause.

7. GUARANTEE TO BE EXECUTED BY SUCCESSFUL E-TENDERER FOR REMOVAL OF DEFECTS AFTER COMPLETION OF WORK IN RESPECT OF WATER PROOFING WORKS:

The successful e-tenderer, undertook to render the buildings and structures in the said contract recited completely water and leak proof.

And whereas the successful e-tenderer agreed to give a guarantee to the effect that the said structures will remain water / leak proof for five years from the date of completion of work.

Now the successful e-tenderer hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be five years to be reckoned from the date completion of work.

Provided that the successful e-tenderer will not be responsible for leakage caused by earthquakes or structural defects or misuse of roof or alterations and for such purpose

A. Misuse of roof shall mean by operation, which will damage roofing treatment, like chopping of firewood and things of the same nature, which might cause damage to the roof.

B. Alteration shall mean construction of an additional storey or a part of roof or construction adjoining to existing roof, where by roofing treatment is removed in parts.

The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee i.e. 05 years, the successful e-tenderer shall make good all defects and in case of any defects being found, render the building water proof at his own cost, to the satisfaction of the Engineer-in- Charge and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by Department through some other contractor at the successful e-tenderer's cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the successful e-tenderer shall be final and binding.

That if the successful e-tenderer fails to execute the necessary rectification or commits breach there under then the Guarantor will indemnify the Principal Employer and his

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successors against all loss, damage, cost expense or otherwise which may be incurred by him by reasons of any default on the part of successful e-tenderer in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the Centre/ Museum, the decision of the Engineer-in-Charge will be final and binding on the parties.

In witness whereof the parties have set their respective hands the day and the year and the place hereinabove written.

Signed by for and on behalf of the Museum/Centre

.....

(Administrative Officer)

In the presence of

1.

Seal (Finance & Accounts Officer)

2.

(Project Co-coordinator/Engineer)

Signed by the said Successful e-tenderer

In the presence of

(1)

Seal

(2)

**FORMAT FOR
BOND FOR SECURED ADVANCES AGAINST
SUPPLY OF MATERIALS**

KNOW ALL MEN by these presents that I/WE
..... do hereby bind myself/ourselves, my/our
respective heirs, executors, administrators and assigns to pay to the.....
.....
.....u
nder the National Council of Science Museums a Society registered under the Societies
Registration Act, 1961 (hereinafter called 'The Museum/Centre') on demand a sum of Rs
..... (Rupees

only).
Dated thisday oftwo thousand and
.....only).

WHEREAS by an agreement dated.....for work
of
the Museum/Centre has agreed in its discretion to allow advance on security of materials
belonging to me/us and brought by me/us to the site of the works undertaken by me/us for
construction purposes.

AND WHEREAS the Museum/Centre has agreed to advance to me/us a sum of
Rs.....(Rupees.....
.....o
nly).
on the security of materials shown in the schedule below and the said Museum/Centre has
granted advance of Rs.....

KNOW ALL MEN by these presents that I/WE
..... do hereby bind myself/ourselves, my/our
respective heirs, executors, administrators and assigns to pay to the.....
.....
.....u
nder the National Council of Science Museums a Society registered under the Societies
Registration Act, 1961 (hereinafter called 'The Museum/Centre') on demand a sum of Rs
..... (Rupees

Dated thisday oftwo thousand and
.....only).

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc
Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre,
Delhi

WHEREAS by an agreement dated.....for work ofthe Museum/Centre has agreed in its discretion to allow advance on security of materials belonging to me/us and brought by me/us to the site of the works undertaken by me/us for construction purposes.

AND WHEREAS the Museum/Centre has agreed to advance to me/us a sum of Rs.....(Rupees.....only).on the security of materials shown in the schedule below and the said Museum/Centre has granted advance of Rs.....NOW THE CONDITIONS OF THE SAID WRITTEN OBLIGATION IS THAT IN THE EVENT OF THE SAID BOUNDEN

- (a) not using the sum advanced for expediting the execution of the works under the said contract.
- (b) offering as security properly, not absolutely his own property or encumbered in any manner.
- (c) not acting in accordance with the terms of the agreement for the execution of the work.
- (d) failing to make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the materials which shall remain in the site of the said works in his own custody and at his responsibility, open to inspection by the Museum/Centre or any officer authorised in that behalf.
- (e) using the materials or any part thereof in such a manner as to be damaged or deteriorated in a greater degree than is due to usual wear and tear thereof.
- (f) removing the said materials from the site of works except with the written permission of the Museum/Centre or any officer authorised in that behalf.
- (g) failing to repay the advance in full before receiving payment of the price payable to him for the said work under the terms and the provision of the said agreement.
- (h) defaulting in the performance or observance in any respect of any of the terms and the provisions of the agreement.
- (i) or committing a breach in any manner whatsoever of any other terms of the contract or default in repayment of the money

AND upon his making such payment the above written obligation shall be void and of no effect, otherwise, it shall be and remain in full force and vital.

Provided always that it is hereby agreed and declared the decision of the Museum/Centre as to whether the saidhas or has not performed the obligations and observed the conditions hereinbefore recited shall be final and binding on the successful e-tenderer.

Signed by the above bounden
in the presence of

(1)

(2)

NATIONAL SCIENCE CENTRE, NEW DELHI					
(A Unit NATIONAL COUNCIL OF SCIENCE MUSEUMS)					
Bill of Quantity					
Name of work:-Construction of Tensile Membrane Fabric, Polycarbonate Sheet Shed with Tubular Structure, uPVC Partition work, and allied civil work for Metal Dome Structure on the second-floor terrace of the National Science Centre, Delhi.					
S.No	Description	Unit	Qty	Rate i/c GST @18%	Amount i/c GST@18%
PART- A Tensile Membrane Fabric Shed with Structural steel work.					
A1	Designing, supplying and installation of Tensile Membrane Fabric shed for metal dome structure on the second floor of National Science Centre, Delhi including support structure and its foundation as per the requirements etc. all complete. The scope of work shall include supply of tensile membrane fabric, supply, fabrication and installation of tubular support structure/ members, connection system, other necessary supporting MS structure, civil foundation work/ foundation bolts grouted on existing slab with chemical anchor fasteners (Preferably HILTI) as per the design and painting as specified. The detailed scope of work for the above is as under:	Sqm	171.50	6500.00	1114750.00

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

i.	<p>Designing:- A concept drawing for the proposed structure is provided with the tender document however, the agency has to submit the final design and get it approved by the competent authority along with the Structural Drawing. The structure is to be created on top of culvert slab in front of NSCD building hence making of individual foundation is not possible. The structure is to be designed in such a way that it can be erected on existing culvert slab with foundation bolt mounted with Hilti Chemical Anchor fastening process. The contractor shall be required to submit in duplicate the following drawings & information for approval of the competent authority before commissioning the work:</p>				
	<p>1) 3 sets of final shed design including plan, section, elevation, isometric/ 3-D rendered view etc. per the requirement.2) 3 sets of structural drawings both for civil foundation/ foundation bolt works and tubular support structure duly vetted by the competent authority. Structure Design of foundation and structural steel members duly done by a competent structure engineer and vetted by competent authority (as per Special Condition No. 1)3) 3 Sets of coloured hard copy and soft copy of shop drawing for fabrication work.4) Shop drawings for fixing, pattern of roofing fabric.5) Complete layout dimensions for every unit / group of units with dimensions required for erection/execution purposes.6) Wind analysis, if any change/modification in design as per site.7) Any other drawing / information not specifically mentioned above but deemed to be necessary for the job by the contractor.</p>				

ii.	<p>Structural Steel Frame work as per approved and vetted structure design:- Supplying, Providing, Fabricating, Assembling, hoisting, erecting and placing in position MS Built-up section/Tubular Structure (MS built-up section:-Rolled section & plates conforming to IS 2062 Grade Yst 350 MPA, Tubular Structure:-made from Steel hollow sections, ISI marked from SAIL / TATA/JINDAL or Equivalent Grade conforming to IS 1161/4923/1239, Minimum Yst 240 MPA) riveted, bolted or welded in the profile shape as per drawings (All Column, base Plate, reef portals, purlins, façade frame, canopy steel structure etc. or all other similar works) with special plate connector, pinion joints, Plates, hollow sections etc. including Preparation of detailed fabrication and erection drawings of Structural steel work from design drawings, transportation from fabrication yard, cutting, threading, machining, leads and lifts up to all heights, tools and plants and</p>				
	<p>Necessary scaffolding etc. Required for all operations involved to make structure of Tensile Membrane shade. The structure has to be provided as per conceptual drawings of Tensile fabric profile, including all arch beam, curved lateral beams and bracings, vertical support columns, nodal joints etc. all complete for trusses and framed work, including cutting, hoisting, fixing in position. The complete structure to be with one coat of epoxy zinc primer and two coats of Polyurethane (PU) paint RAL 9010 on steel work at all locations prepared by Surface Preparation shot blast clean to Sa 2.5 as per ISO 850 1.1/BS/7079: A1 with the range 50-75 & required minimum 310 micron DFT (dry film thickness) for each coat as specified in particular specification.</p>				

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

iii.	<p>Tensile fabric:- Providing, fabricating, assembling and erection of pre-stressed Tensile Membrane Fabric structure in desired profile including fabric designing and seaming as per conceptual drawing. The fabric structure should be Mehler / Sattler or equivalent grade conforming max tensile strength warp/weft 4200/4000 (N/5 cm) . This work shall include raw material, patterning, forming, cutting, welding, fixing and installation with GI cables, flashing, hot dipped galvanized e Corner Plates and hardware with EN8 grade 8.8 - HDG etc. including lifts up to all heights, tools and plants, and necessary scaffolding etc. required for all operations. The work also includes tensioning of fabric, Aluminium strips, fixing on top of fabric including all materials, labour, scaffolding, fitting materials, cutting to size and shape wherever required, etc. all complete as per direction of Engineer-in-Charge. (Colour of the Fabric roof to be decided by the organization and no wastage shall be paid).</p>				
iv	<p>Civil foundation:-The proposed structure is to be erected in front of NSCD building on either side of entrance gate and is proposed to be built/ erected on the existing culver as per the vetted structural design. The scope of work includes providing and executing requisite civil/ structural work for the foundation and grouting of foundation bolts using HILTI Chemical fastener all as per the design including supply of all material, labours, water and taxes all completes as per direction of Engineer-in-Charge.</p>				
	Mode of Measurement:				

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

	Plan area to be measured for payment purpose for entire canopy work including civil foundation and structure steel frame work painting etc. all complete as a one composite job. No additional for civil work, grouting of foundation bolts/ Hilti chemical fastener, tubular support structure will be made separately. Additional surface area of fabric roofing/ canopy for its conical shape or cone height shall be made. Agency has to make the provision of the same in their quoted rate.				
SPECIAL CONDITION:					
1	A sample drawing has been given with this tender to guide the contractor to know the type and nature of work to be executed. However, tender drawing attached with this document is not the final drawing adopted for the construction. Before execution of the work the agency must get the foundation design and design of structural framework from any structural consultant and get the same vetted from any Government Engineering College or other approved competent agency. The work is to be executed strictly as per the approved foundation design and structural design duly vetted by approved authority. All expenses for the above activity shall be borne by the contractor hence the rate quoted should also include such expenses.				
	Maintenance manuals:				
	Prior to completion of the work and handing over of the project, the contractor shall submit one set of following details: i) List of recommended spare parts with spare part codes, specifications & source of procurements. ii) Catalogue/brochure for fabric roofing.				
	TECHNICAL SPECIFICATION				
	As per Annexure- A of NIT				
	LIST OF APPROVED MAKE				
	As per Annexure- B of NIT				
	TOTAL OF PART-A Rs.				1114750.00

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

PART-B - uPVC partition and Door					
B1	Providing and fixing factory made White UN-PLASTICIZED Poly Vinyl Chloride (uPVC) Partitions or Windows/Doors (of make approved by competent authority) at all levels made out of extruded three chambered profile frames with hermetically sealed single glazed glass customized in 56mm wide system i/c all fittings and fixing at site and sealing of gaps as per the designs & specifications narrated below and as per direction of Engineer-in-charge, all complete.				
	(i) PARTITION PROFILES: Partition outer profile of frame size of 65w x 58h mm or as per standard of the manufacturer; mullion/transom profile of frame size of 65w x 80h mm and door outer profile of frame size 56w x 63h mm; mullion profile size of 56w x 100h; shutter (sash) profile of frame size of 56w x 84h mm or equivalent profile and these shall be conforming to the following standards & passing to following tests (a) BS 7412 & BS 7413 as per BSI UK (b) 9ppm Titanium Dioxide (Tio2) test (c) Should pass test of 'Classification-P' for 'ignitability' and 'Class-I' for 'Surface spread of flame' as per BS 476-Part7. For fixed partition, the vertical members are to be placed @ 600 mm c/c(Approx). (ii) HARDWARE: The profile section should be compatible for double glazing using high quality locking mechanism such as Avocet make Espagnolette multipoint or equivalent and stainless steel Friction stays of Grade AISI 304 and other suitable handle and fixtures.				
	(iii) BEADS: The glazing bead profiles must be co-executed with EPDM gaskets and conform to the same test as profiles.				

	<p>(iv) GASKET: The gasket should be made of EPDM (Ethylene propylene di-monomer) of high quality such as Anand Nishlkawa or equivalent with double gasket sealing between the outer frame and the shutter (sash) frame. (v) GLASS: Hermetically sealed Single glass insulated unit of 24 mm thickness using 8 mm thick toughened glass. The glazed glass shall be of high quality of make- Saint Gobin or equivalent.</p>				
	<p>(vi) GI REINFORCEMENT: All the profile sections should be reinforced with GI sheet of 2.5mm+/-0.5 mm thickness. The reinforcement must have cleared a 20 days Salty Spray Test as per ASTM-B-117 guidelines from any testing agency as decided by Engineer-in-charge.</p> <p>(vii) COUPLERS: Fixed casement window coupler with fixed casement window with 12 mm thick uPVC with steel reinforcement. Fixed casement window coupler with open able casement door with 12-15 mm thick Aluminium/uPVC section.</p>				
	<p>(viii) INSTALLATION: The Fixed partition must be aligned in plumb and water level and installed using high quality steel fasteners. The outer frame of partition must be sealed with silicone based sealants from outside and acrylic paintable sealant from inside. Installation shall be done by manufacturer or skilled contractor. Installation must carry a manufacturing warranty for a period of 15 years against manufacturing defects and 15 years for leak proof installation. Installations shall also include cutting and re-do POP work as necessary on site as per direction of Engineer-In-Charge.</p>				

	(ix) Other Arrangements: The outer frame and shutter frame must have provision of drainage and should include all necessary hardware fittings such as high quality Espagnolette handle and Wedge Block etc. All complete in the pattern as per architectural drawings and as per direction of Engineer-in-charge. a) For Fixed Portion (the measurement shall be taken from outer profile to outer profile (L x B) and nothing extra shall be paid for curvature. (b) Extra for open able portion above item No. 1. (a) (The measurement of open able portion shall be measured from outer to outer side for payment.)				
i.	For Fixed partition	Sqm	55.00	6000.000	330000.00
ii.	For Open able side hung door	Sqm	9.00	6500.000	58500.00
	TOTAL OF PART-B Rs.				388500.00
PART-C: Allied Civil Works.					
C1	Demolition of roof tiles laid in cement mortar, with machine cutting to a depth of 50mm from the existing surface along the pre-layout curve along the required curvature including removal and disposal of material as per the instructions of the Site In charge.				
	For thickness of tiles above 25 mm and up to 40 mm.	Sqm	15.00	140.000	2100.00
C2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	2.00	10829.760	21659.52

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

C3	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above and below plinth level. Cold twisted bars				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	125.00	95.320	11915.00
C4	Centering and shuttering including strutting, propping etc. and removal of form for				
	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	15.00	646.860	9702.90
C5	Extra for shuttering in circular work (20% of respective centering and shuttering items)	sqm	15.00	129.370	1940.55
C6	12 mm cement plaster finished with a floating coat of neat cement of mix :				
	1:3 (1 cement: 3 fine sand) .	Sqm	45	397.83	17902.35
	TOTAL OF PART-C Rs.				65220.32
PART- D Installation of Polycarbonate Sheet roof.					
D1	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	Hot finished welded type tubes.	Kg	300.00	164.71	49413.00
D2	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	30.00	98.94	2968.20

D3	Providing and fixing 10 mm thick twin layer UV protected PCSS (Polycarbonate Structured sheet) in approved colour of approved make on curved roof on S.S. structure using 60 mm aluminium base profile and aluminium cap profile, (L Cock system), EPDM dome rubber gasket and fixed with high carbon self-drilling screws with washers including providing and fixing anti dust non-woven tape system wherever required with Aluminium/ Polycarbonate edge profile to protect edges all complete as per the specification and direction of Engineer-In-Charge. Make: Bayer/ Lexun/ PRIME. (IS CODE- IS 14443 : 1997). Including cost of scaffolding up to 10 m height.	Sqm	10.00	2100.00	21000.00
D4	Fill the gaps formed during the installation of PCS in the walls and in the necessary places to prevent water leakage from the newly installed polycarbonate sheet with Silicone Sealant of suitable colour with gun. Work completed as per instructions of the Site-in-charge.	Rmt	20.00	95.00	1900.00
D5	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: Two or more coats on new work.	Sqm	20.00	139.77	2795.40
	TOTAL OF PART-D Rs.				78076.60
	<u>Total PART-A+PART- B+ PART-C+PART-D Rs.=</u>				1646546.92
	GENERAL ABSTRACT OF COST				
	Cost of work	Rs	1381563.12		
	GST As applicable @ 18%	Rs	248681.36		
	Cost of works excluding Labour welfare cess	Rs	1630244.48		
	Labour Cess @1%	Rs	16302.44		
	Cost of work including (GST+LC)	Rs	1646546.92		

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

TECHNICAL SPECIFICATIONS

**For
CONSTRUCTION OF TENSILE MEMBRANE FABRIC,
POLYCARBONATE SHEET SHED WITH TUBULAR
STRUCTURE, UPVC PARTITION WORK, AND
ALLIED CIVIL WORK FOR METAL DOME
STRUCTURE ON THE SECOND-FLOOR TERRACE.**

**AT
NATIONAL SCIENCE CENTRE, DELHI**

**SPECIFICATIONS FOR TUBULAR STRUCTURE FOR FRAMEWORK, ETC.
(ITEM No. 1 (ii) of Schedule of Quantities)**

1. GENERAL:

Supply, Providing, Fabricating, Assembling and erecting at site Tubular Structure (All Columns, base plates, roof portals, purlins, Facade frame work, canopy steel structure etc, or similar work) consisting of MS base plates (YST 250) MS Pipes, squares rectangles, & other structural steel sections conforming to IS 1161 Grade 310.

1.1. SCOPE OF WORK:

The above item includes supplying, providing, fabricating, assembling, and erecting at site Tubular structure in the bended profile shaped as per the drawing with special plate connectors, pinion joints, using SAW / MIG / MMAW welding process with cleaning the surface with copper slag blasting, applying two coats of epoxy primer cum intermediate coat and two or more finish coats with polyurethane paint

1.2 MATERIALS:

MS Plates confirming to IS 2062 YST 250 Gr. and Tubular Hollow Section Conforming to IS 1161/4923, Yst-310.

Connecting Bolts to be hot dipped galvanized high tensile bolts of minimum 10.9 grade. The Bolts should be as per IS 1364/IS 1367. Bolts shall be provided with a washer of sufficient thickness to avoid any threaded portion falling within the thickness of the parts bolted together if required.

The bended rafter/purlins in the profile as per drawing should be connected to the profiles MS rakers with suitable arrangement; Metal casing shall be provided at the end of rakers as per the drawings. The bending of the members wherever specified should be in exact profile as per requirement.

Connector should be of high strength, manufactured out of similar grade of steel material of required dimensions and holes for the bolts in the required position and direction. The item includes cleaning the surface and painting two coats of epoxy primer cum intermediate and two of more coats of polyurethane paint etc. complete. The structure should be properly bended, connected welded and aligned to get the required profile.

1.3 EXECUTION

Tubular frame work (Pattern as per approved design and drawings) shall be got executed by specialized agencies having requisite experience in execution of similar works of similar magnitude as approved by Engineer-in-Charge. Structural Steel work shall be executed as per Structural design duly vetted by IIT/NIT/reputed Govt. Engineering College. As payment of Structural design and vetting fee shall be the responsibility of the executing agency necessary consideration of the same should be made while submission of the tender.

The structure should be properly bended, connected, welded and aligned to the required profile, i.e. work shall be executed as per designs given and workshop drawing prepared by the agency and got approved by the Engineer-in-Charge.

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

Tubular structure system with plate connectors, pinion joints, etc. complete in all respects to make structure of main Terminal Building/canopy is to be provided.

All components of tubular frame to be cleared off the dusts/scales etc. completely before applying primer.

1.4 SHOP DRAWINGS:

The works includes preparation of shop drawings by agency giving complete information, necessary for the fabrication of the component parts of the structure including the location, type, size, length and detail of all welds, and nuts, bolts, rivets etc. as per provided Design drawings. The shop drawings shall be sufficient to ensure convenient assembly and erection at site. These drawings shall also include full details of all joints, connections, splices etc. The specification deals with the fabrication and erection of steel structures for Tensioned Fabric Roof. Size of pipes and dimension as shown in the drawings should indicate complete plan layout of the proposed structure together with sections and relative locations of various members. The plate, pipes, tubes and members etc. are to be provided as per approved structural design and shop drawings to be got approved from Engineer in charge.

1.5 FABRICATION PROCEDURE

1.5.1 Assembly

All connections shall be either bolted or welded as shown on the drawings. The contractor shall not redesign or alter any connection without prior approval of the Engineer-in-Charge. The components parts shall be assembled in such a manner that they are neither twisted nor otherwise damaged and shall be prepared such that the specified cambers, if any, are provided. Drifting done during assembly shall not distort the metal or enlarge the holes.

1.5.2 Bolting

a) All steel work, which is bolted together, shall be in close contact over the whole surface. Where two bolted surfaces are to be in permanent contact after assembly, each shall be thoroughly scraped free of loose scales, dirt and burrs and a heavy coat of red oxide, zinc phosphate or other approved paint applied after cleaning and drying.

All bolts shall be providing with washers under the nuts and the washers shall be tapered on the inside of the flanges of RS joists and channels. Bolts and studs shall project not less than one full thread through the nut after tightening. Unless otherwise specified, the ends of the bolts shall be burred after erections of prevent the removal of nuts.

b) High tensile steel bolts of grade 10.9 shall be used in bearing of friction as shown on the drawings. High strength bolted joints shall be made without the use of erection bolts. Bolts shall be of a length that will extend not less than 10mm beyond the nuts. Bolts shall be entered into the holes without damaging the thread-members. They shall be brought tightly together with sufficient high-strength fitting up bolts, which shall be re-tightened as all the bolts are finally tightened. Bolt heads shall be protected from damage during placing. Bolts that have been completely tightened shall be marked for identification. Bolted parts shall fit solidly together and shall not be separated by interposed compressible materials. The contact surface in high strength bolted connections shall be free of oil, paint, lacquer, loose scale or other coatings. The facing surfaces shall be machined flat. Final tightening of high strength bolts shall be by turn of nut method.

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

c) Anchor bolts shall be set by use of templates secured firmly in place to permit true positioning of the bearing plates and assemblies. When in drawings anchor bolts are shown to be installed in sleeves, the sleeves shall be completely filled with grout.

1.5.3 Welding

a) Welding shall be done in accordance with IS-816-code of practice for use of metal arc welding for general construction in mild steel.

b) IS: 820 - Code of Practice for the use of welding in tubular construction.

Shearing, chipping or gas cutting may prepare profile of fusion faces. In all cases the faces should be dressed by chipping, filling or grinding and made regular.

The surface to be welded and adjoining metal for distance of at least 20mm must be clean free of rust, scale, paint etc.

Each bead of metal shall have the slag removed by light hammering and wire brushing before the next bead is deposited. The weld must show a good clean contour and on a cut specimen good fusion with parent metal. Before applying paint, the weld shall be carefully chipped and wire brushed.

Welding procedure shall be based on the specific analysis of any given heat of steel and shall be subject to the review of the Engineer-in-Charge.

These procedures shall call for one or all the following:

Proper bead shape:

Minimized penetration to prevent dilution of the weld metal with the alloy elements Preheating, controlled inter-pass temperature and controlled heat input.

Welding shall be performed only by qualified and tested welders specifically trained and experienced for the type of job required to execute the welding work to the complete satisfaction of the Engineer-in-Charge. Welder should have minimum five years of experience in the job of similar nature.

Use of standard weld symbols as adopted by IS: 813 is mandatory. Pre-qualified jointed which are detailed, prepared and welded in accordance with the requirement of IS: 816 shall invariable be used.

Structural welding shall not commence until joints elements are bolted or tacked in intimate contact and adjusted to dimensions shown with allowance for any weld shrinkage that is expected. Welding sequence shall be planned and controlled to minimize undue stress increase or undue distortions on restrained members. Heavy sections and those having a high degree of restraint shall be welded with low hydrogen type electrodes.

Concave bead shape shall be avoided. Radius of weld width to weld depth shall preferably vary from a minimum of 1 to 1 to a maximum 1.4 to 1.

Width of weld / Depth of fusion = 1 to 1.4

Field Welding shall not be permitted unless shown on the drawings.

Subsequent to fabrication, the overlapping or contracting surfaces or other closed sections (such as tubular, box section) which are inaccessible to painting shall be seal welded when the end of the tube is not automatically sealed of its connection by welding to another member the end shall be properly and completely sealed. Before sealing, the inside of the tube shall be made dry and free from loose scale.

Order of assembly of the tubular section shall consist of welding the tensile member to the main member first. Compression member shall be cut back to overlap the tensile member and then welded to both the tensile members.

1.5.4 Inspection of Welding:

All welded connection shall be inspected as per IS: 822.

1.6 ERECTION

As far as possible, the contractor shall deliver the fabricated steel work to the site in the same sequence as that which he wishes to follow for the erection. Dispatch should be scheduled to avoid cluttering up of the site. The bolts required for erection shall be bagged according to size prior to dispatch. The sequence & methodology of erection shall be prepared & submitted by the agency before starting the erection work.

All structural work shall be erected in accordance with IS: 800, IS: 806 and IS: 1915 and as per the approved erection drawings. The contractor shall be responsible for setting out the works. The suitability and capacity of all plant and equipment used for erection shall be to the satisfaction of the Engineer-in-Charge. These shall be regularly serviced and maintained. Occupation safety practices shall be strictly adhered to and shall be to the satisfaction of the Engineer-in-Charge.

Individual places shall be plumbed, leveled and aligned. Drifting shall be used only to bring together the several arts. They shall not be used in such manner as to distort or damage the metal. Temporary bracing, but-line and staging shall be provided to ensure proper alignment and to adequately protect all persons, property and to withstand all loading to which the structure may be subjected during erection.

Attachment of such temporary steel work to the permanent steel work shall only be done with the approval of the Engineer-in-Charge. Temporary steel work shall remain in position until the structure is stable and self-supporting and permanently bolted or welded to the satisfaction of the Engineer-in-Charge after removal of temporary steel work, the permanent structure shall be made good to the complete satisfaction of the Engineer-in-Charge.

No permanent bolting or welding shall be done until proper alignment has been obtained. Erection of the parts with any moderate amount of reaming, chipping or cutting shall be immediately reported to the Engineer-in-Charge. The steel work shall be rejected unless corrective action is approved by the Engineer-in-Charge.

Placement of joists shall not start until the supporting work is secured. Temporary bridging, connections and anchors shall be proved to assure lateral stability during erection. Bridging to steel joists shall be installed immediately after joint erection, before any construction loads are applied. Horizontal or vertical bridging shall be provided in accordance with the type of span of the joists. Ends of the bridging lines shall be anchored at top and bottom chords where terminating to walls or beams.

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

1.6.1 Surface Preparation & Comments

Abrasive blast cleans to Sa2.5 (ISO 8501-1:1988) or SSPC-SP6. If oxidation has occurred between blasting and application, the surface should be re-blasted to the specified visual standard. Surface defects revealed by the process, should be ground, filled, or treated in the appropriate manner. All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:1992. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

1.6.2 Paint System:

	GENERAL SURFACE
1 st Coat (Primer cum MO)	First coat with epoxy primer cum MIO in two components i.e. base and hardener. The DFT shall be 125 microns.
2 nd Coat (Primer cum MIO)	Second coat with epoxy primer in two components i.e. base and hardener. The DFT shall be 125 microns.
Finishing Coat (to be applied in two coats)	Two components Polyurethane Finish paint with Volume solids of minimum 63%0, Hardtop XP or approved equivalent. having VOC < 320 gm/liter, The DFT in Two coats shall be 100 microns.

DFT Measurement should be in accordance with SSPC SPA 2. The entire paint system shall be of same manufacturers.

1.6.3 Painting of Structural Steel: -

All Paints delivered to the shop shall be ready mixed in original sealed containers, as packed by the paint manufacturers. Painting shall not be carried out when the temperature is below 4 degrees C, or above 50 degrees C, Jess than 3 degrees C above the dew point, or when the relative humidity is above 80%.

Paint shall be applied in accordance with manufacturer's recommendation, as supplemented by these specifications. The work shall be generally follow IS: 1477 —(part-II). Prior approval of Engineer shall be taken in respect of all primer or paints, before their use in works.

For Brush Application: Proper brush shall be selected for a specific work piece. Round or oval brush which confirms to IS: 487 are better suited for irregular surfaces, whereas flat brushes which confirm to IS: 384 are convenient for large flat areas.

For Spray Application: The spraying equipment shall be compatible with the paint material and provided with necessary gauges and controls. The equipment shall be cleaned of dirt, dried paint, foreign matter and solvent before use.

1.6.4 Product Characteristics:

Epoxy Primer cum MIO

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

Volume Solids	74 +2% (Min)
VOC	Less than 264 g/liter
Colour	1st coat-RED; 2nd coat-Grey
Typical Thickness	125 microns each coat
Theoretical Coverage	2.4Sqm/ litre at 125 microns DFT or as per manufacturer's specification

Polyurethane Paint

Volume Solids	63 + 2%
VOC	Less than 336 g/liter
Colour	As per approved by E-I-C
Typical Thickness	100p in two coats
Theoretical Coverage	6.3 m2/litre (75p. DFT or as per manufacturer's specification.

1.7 TEST & FREQUENCIES

1.7.1 Material Test:

All the material shall be tested as per relevant specification mentioned there-in, all pipes/plates/sections shall be tested as per following frequency for physical and chemical properties.

- a) Pipes — Hollow Section: -one test per dia. / size subject to minimum one test per 9 MT per size. However, if quantity of any size is less than 1 MT, the test may be waived of at the discretion of EIC.
- b) Plates/Flats: -One test per 20MT for each size
- c) Manufacturers test certificate shall also be supplied along with each batch material.

1.7.2 Quality Test:

1. Liquid Penetration Test: 30% of total Joints

2. Magnetic Particle test (MPT):

- a. 15% of total joints.
- b. MPT on TKKY joints and lifting joints: 10% of such joints

3. Ultrasonic Test: 10% of all joints. 1.7.3 Field testing:

Provision for adequate testing facility/ arrangements for conducting required field tests as per 15 codes, on raw materials, welded parts, finished products, painting etc. shall be made at the fabrication yard. All, records/test reports shall be maintained till completion of the work and submitted to the Engineer-in-Charge on demand. Digital/ latest version of testing equipment's shall be provided and used for testing, by qualified QC personnel. Nothing extra shall be paid on this account. Copies of applicable IS codes shall be made available at site.

**SPECIFICATIONS FOR PRE STRESSED TENSILE
MEBRANE FABRIC FOR ROOFING**

(ITEM No. 1 (iii) of Schedule of Quantities)

1 GENERAL

Providing, fabricating, assembling and erection of Tensile Fabric Roof in desired profile along with Mehler Technologies Valmex Type-II Mehatop N, Sattler Atlas Type II or Serge Ferrari TX30 **Type-II** fabrics or equivalent having weight of 900-950 **g/sqm** with flame retardant as per particular specification. **PVDF lacquer on both sides. Colour of the fabric should be Gray/ White or any other Shed approved by the department, Conditional Warranty of 20 years** on the fabric.

1.2 Material

All the membrane materials specified for the roof should be manufactured in country of Fabric company's origin. A declaration from the manufacturer along with certificate of origin has to be provided by the fabric supplier. The material in general shall conform to following parameters:

Sl. No.	Technical Properties	Value/ Brand
1.	Weight	900 to 950 gm/sqm
2.	Fabric Thickness	0.72 to 0.80 mm
3.	Max Tensile Strength	4200/4000(N/5 cm)
4.	Tear Strength	500/500 (N)
5.	Cold Resistance	-400 C
6.	Heat Resistance	+700 C
7.	Surface Treatment (Top/Back)	PVDF/PVDF
8.	Quality confirming with	ISO 9001
9.	Solar reflective index	More than 95 %
10.	Crack resistance	No Cracks
11.	Architectural Tensile Fabric of Type II Category	MEHELER Valmex Type-II, SIOEN, SATTLER Atlas Type-II, SERGE FERRARI TX 30 or any other equivalent approved brands as decided by Department.
12	Finish	Nano- polymered fluorinated lacquer, Multi-composed PVDF-lacquer system on both sides, protected against microbial and fungal attack, UV-protected, low-wick, Titaniumdioxide (TiO2) front side primer

1. **Temperature resistance: -30 to +70 degree centigrade.**
2. **Flame retardant as per manufacturer's specification and shall conform to relevant European/ ASTM/ Indian standards.**
3. **The membrane must have a double lacquering made out of highly concentrated PVDF on both side, double side primer, double PVC coating. Calibrated PVDF Alloys not allowed.**
4. **The membrane shall be highly flexible and not suffering any peeling of the top coat (lacquering) effect.**
5. **The foldability / flexibility of the material shall confirm to relevant European/ ASTM for crack resistance.**
6. **The colour of the fabric shall be Gray or While as approved by the department. Sample of the proposed fabric has to be submitted for approval and approval is to be obtained before procurement.**

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

1.2 Warranty

The Canopy installed shall be in accordance with this specification and shall be guaranteed against water proofing/leakage for 10 years and **20 years for the fabric**. After execution Fabric warranty shall be given for the years as per minimum year or fabric brand's specified years whichever is higher.

1.3 PVC Maintenance Kit

The materials shall be packaged into a maintenance kit for storage by the Client. Agency should supply with the following materials for emergency repair or maintenance .

i.	300 mm diameter PVC patch	-	03 nos.
ii.	100 mm x 200 mm rectangular PVC patch	-	03 nos.
iii.	Utility Knife	-	01 no.
iv.	Approved PVC glue	-	LS.
v.	booklet repair manual	-	01 no.

1.4 STRUCTURAL CABLES AND FITTINGS

a) This work shall consist of the fabrication and supply of all the structural cables and fittings for the support of the tensioned membrane structures as shown in the drawings.

b) All edge cables to be Galvanised Strands (Grade 1 570MPa strand) with stainless end terminations. All tensioners, nuts and bolt shall be stainless steel and manufactured to the relevant standards.

All membrane plates shall be proprietary design manufactured to IS standards. All membrane plates shall be hot dip galvanised and treated with a two-coat epoxy paint finishing system applied by an accredited painting contractor.

Joins in Cables

No splicing or joining of wires, strands or ropes shall be permitted. Wire rope shall be packaged in coils or reels at the discretion of the manufacturer, and handled throughout in such a manner as to avoid permanent deformation of wire, rope or strand.

Swaged Terminals

All terminations shall be stainless steel. The materials, thickness and swaging system employed shall be chosen by the specialist sub-contractor to achieve a breaking strength of the terminal detail not lower than the specified minimum breaking strength of the cable.

e) Shackles, Rigging Screws and Turnbuckles

All fittings shall be hot dipped galvanized. The strength of the shackles, rigging screws and turnbuckles etc. shall exceed the minimum breaking load (MBL) specified on the drawings. The shackles, rigging screws and turnbuckles etc. shall meet the tensioning and tolerance requirement for the fitting used in tensioned membrane structure.

1.5 Testing

Tensile fabric material shall confirm to specifications as specified above and shall be tested for its Tensile Strength, Tear Strength, and weight per Sqm. in accordance with relevant Indian/ European/ American Standards or as specified by the manufacturer. All testing results should be in confirmation with the specification desired and approved by Engineer-in-charge. For testing of material in addition to approved test labs following labs can also be used:

1. Shri. Ram Testing Laboratory, New Delhi
2. ARC Laboratories, Rohini, Delhi.
3. DTU, Bawana Road Rohini, Delhi.

1.6 Measurement

Length and width to be measured correct to a centimeter of plan area of canopy including gutter and area calculated in square meter correct to two places of decimal. No addition of extra fabric/ structure area due to conical shape of canopy or gutter etc. would be measured. Agency has to quote their rate accordingly and provision of additional expenditure on account of the same should be kept in their quoted rate.

No deduction shall be made for voids/ opening not exceeding 0.20 Square meter. Deduction for ends of dissimilar materials or other articles embedded shall not made for area not exceeding 0.10 Sq. meter.

1.7 RATE

The rate should be quoted for the canopy/ shed, including supporting steel frame structure and related civil foundation/ foundation bolt/ Hilti Chemical Anchor fastner foundation bolts, for per Sqm of work measured in the plan area as one job and shall include cost of all the materials, labour and accessories involved in fabrication and erection of tensile membrane canopy like tensile fabric, Galvanised MS membrane/ end plate, shackles, rigging screws, turnbuckles, swedge, fork, keder rod & galvanised MS strands/ cables with stainless steel and terminals, installation with G.I. cables hardware, Aluminium flats, EPDM gasket and required accessories wherever required to complete including support steel frame consisting of MS plates, tubular hollow sections, epoxy primer cum intermediate coat and finish PU paint, welding material etc. including wastage, all tools & plants, scaffolding and labour involved in all the operations like shifting of materials, straightening, cutting, fabrication, welding, grinding, machining, threading, assembling, fixing in position/erection, hoisting the structure by crane/ lifting arrangement, bending, transportation etc. and all leads & lifts complete including charges for necessary tests & preparation of shop drawings.

The rate quoted should be composite rate for entire item including designing as specified in the tender item which shall also include lifts up to all heights with necessary lifting arrangement, tools, plants and necessary scaffolding etc. required for all operations in all respect and should include all wastage, taxes & duties as applicable including GST.

LIST OF APPROVED MAKE

For
CONSTRUCTION OF TENSILE MEMBRANE FABRIC, POLYCARBONATE SHEET SHED WITH TUBULAR STRUCTURE, UPVC PARTITION WORK, AND ALLIED CIVIL WORK FOR METAL DOME STRUCTURE ON THE SECOND-FLOOR TERRACE AT NATIONAL SCIENCE CENTRE, DELHI

Sl. No.	Product	Approved Brand / Manufacturer
1.	ARCHITECTURAL TENSILE FABRIC	MEHELER VALMEX TYPE-II, SIOEN, SATTLER ATLAS TYPE-II, SERGE FERRARI TX 30 OR ANY OTHER EQUIVALENT APPROVED BRANDS AS DECIDED BY DEPARTMENT.
2.	HOLLOW CIRCULAR TUBULAR STRUCTURAL SECTION	TATA/JINDAL/APL-APOLLO/SWASTIK
3.	REINFORCEMENT STEEL	RINL, SAIL, TATA STEEL, JSW STEEL
4.	CEMENT(OPC/ PSC / PPC)	ACC, ULTRATECH,DSP, RAMCO, JSW
5.	WHITE CEMENT	J.K. WHITE, BIRLA WHITE
6.	STRUCTURAL STEEL SECTIONS	RINL, SAIL, TATA STEEL, JSW STEEL
7.	HARDENERS	IRONITE, FERROK, HARDONATE
8.	ADHESIVE	PIDILITE, DUNLOP, CICO.
9.	EPOXY MORTAR/ CHEMICALS & GROUTS	FOSROC, SIKA. CICO.
10.	DASH FASTNERS/ CHEMICAL HASTNERS	HILTI, FISCHER, BOSCH.
11.	EPDM GASKET	HANU/ANAND.
12.	STRUCTURAL SILICON	DOW CORNING/WACKER, GE.
13.	WEATHER SILICON	DOW CORNING/WACKER, MCCOY, SOUDAL.
14.	POLY-SULPHIDE SEALANT,	PIDILITE, FOSROC, SIKA, BASF, SHALIMAR
15.	EPOXY PRIMER & PU PAINT	ICA PIDILITE/ MRF/ ASIAN/ NEROLAC/
16.	(UPVC) PARTITIONS OR WINDOWS/DOORS	DUROPLAST/MODERN/ECO GREEN/HARIOM or Equivalent Approved makes.
17.	POLYCARBONATE SHEET	BAYER/ LEXUN/ PRIME. (IS CODE- IS 14443 : 1997)

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

BANK DETAILS OF NATIONAL SCIENCE CENTRE, DELHI
(For depositing EMD through Bank transfer, NEFT or RTGS)

Name of the Account Holder	NATIONAL SCIENCE CENTRE, DELHI
Account No.	2417101004100
Bank Name	CANARA BANK
Bank Address	6, Bhagwan Das Road, New Delhi
IFSC Code	CNRB0002417
MICR Code	110015045
Type of Account	Saving Account
Branch Code	2417

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

(Format for Declarations & Undertaking to be typed on bidder agency's letter head and to be submitted in Part –I (TECHNICAL ENVELOPE) of the e-tender document)

DECLARATION -1

This is to certify that neither I/we/any of us is in anyway related to any employee in the National Council of Science Museums, Kolkata, or any of its constituent units.

Date:

Place:

**(Signature of the tenderer)
with company seal/rubber stamp**

DECLARATION -2

I/We hereby declare that I/we have not quoted any extra condition along with the Part-II (FINANCIAL ENVELOPE) of the e-tender.

Date:

Place:

**(Signature of the tenderer)
with company seal/rubber stamp**

UNDERTAKING

This is to certify that I/we have carefully gone through the drawings/specifications, etc. given in the e-tender document & have clearly understood the site working conditions, time schedule given and have accordingly quoted my balanced rates after going through all details.

I/We also undertake that the physical EMD instrument shall be deposited by me/us with the office of NATIONAL SCIENCE CENTRE, DELHI inviting the e-tender before the bid opening date otherwise the NATIONAL SCIENCE CENTRE, DELHI inviting the e-tender may reject the bid and also take action to withdraw my/our enlistment or debar me/us from further tendering in NCSM or its constituent units.

I/we hereby give an undertaking that I/we shall carryout the work strictly as per the given specifications, and shall complete the same within the stipulated time frame.

Date:

Place:

**(Signature of the tenderer/ bidder)
With company seal/rubber stamp**

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

(To be submitted on Agency's Letter head in the Portal as well as hard copy)

Ref:

Date:

DECLARATION

We, M/s., hereby solemnly declare as

follows, in respect of the Tender No. :-

- a) That, we have downloaded all the documents from CPP e-Procurement Portal of NIC and all the uploaded information / statements are true to the best of our knowledge.
- b) That, our firm is not involved in any Litigation or Arbitration with NCSM/ National Science Centre, Delhi during the last 05 (five) years.

Date:

Place:

(Signature of the tenderer/ bidder)
with company seal/rubber stamp

ANNEXURE – C

TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

[Department User may ask for Tender Acceptance Letter instead of asking Signed Tender Document from the Bidders. This is a sample format; User may revise it as per their Tender Conditions]

Date:

To,

Acceptance of Terms & Conditions of Tender.

Tender Reference No:

Name of Work:

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned ‘ Tender/Work’ from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organization too has also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully,

(Signature of the tenderer/ bidder)
with company seal/rubber stamp

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi

ANNEXURE- D

National Science Centre
Near gate No. 4, Pragati Maidan
Bhairon Marg, New Delhi – 110001
(A constituent unit of National Council of Science Museums)

Bid Securing Declaration Form

Date -----

Tender No.-----

I/We. The undersigned, declare that:

I/We undersigned that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from date of notification if I am/We are in a breach of any obligation under the bid conditions, because I/We

- a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i)fail or refuse to execute the contract , if required, or (ii) fail or refuse to furnish the performance Security, in accordance with the instructions to bidders.

I/We undersigned this Bid Securing Declaration shall cease to be valid if I am/ we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my /our Bid.

Signed : (insert signature of person whose name and capacity are shown)

In the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on-----day of ----- (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

Name of the work: Construction Of Tensile Membrane Fabric, Polycarbonate Sheet Shed With Tubular Structure, Upvc Partition Work, And Allied Civil Work For Metal Dome Structure On The Second-Floor Terrace At National Science Centre, Delhi