NATIONAL COUNCIL OF SCIENCE MUSEUMS SECTOR-V, BLOCK-GN, BIDHANNAGAR, KOLKATA: 700 091.

TENDER No.: I-18012/10/20(44)

Technical Specification for Fabrication, Supply & Installation of Interior facilities at Sub-Regional Science Centre, Kokrajhar, Assam

1. Introduction

A new Sub-Regional Science Centre is coming up at Kokrajhar, Assam, where several facilities will be developed by NCSM, Kolkata. For developing such facilities, fabrication works of **Wooden Wall Panels, Partition, Furniture and Acoustic Panelling** etc. are required. Offers are invited in form of e-tender from competent agencies to execute the fabrication job of these facilities strictly conforming to the technical specification and General Terms & Conditions of this e-Tender.

2. Fabrication work

Fabrication of the following items of the Sub-Regional Science Centre, Kokrajhar are to be carried out by the successful tenderer:

A) Office Block:

- i. Curator's Cabin → Partition Walls with doors & glass pane
- ii. Workshop \rightarrow Work Table (3 nos.) & Work stool (6 nos.)

B) Demonstration Block:

Taramandal \rightarrow Low height Partition Walls & Shoe Rack – 1 no.

C) Conference Room:

Conference Table – 1 no.

D) Reception Area:

Reception Table -1 no.

E) Auditorium Block:

Acoustic Wall Panelling \rightarrow Side walls and back wall of the Auditorium will be panelled with acoustic **Polyester Fibre Boards**.

The above items will be fabricated using specified quality C.P Teak wood sections, plywood sheets, laminate sheets, clear glass sheet, false ceiling board and other materials as per drawing and specification. Supply of all these materials and various consumables required for fabrication of above items shall be in the scope of supply of the tenderer. Fabrication of each

item has to be executed in accordance with following drawings, each of which forms an integral part of this specification:

- (1) Partition Wall for Curator's Cabin, Drg. No. CIVIL-06/10/2020
- (2) Work Table (Mechanical), Drg. No. FUR/01/5/09
- (3) Work Table (Light Work), Drg. No. FUR/04/8/09
- (4) Work Table (Electronics), Drg. No. FUR/02/6/09
- (5) Work Stool, Drg. No. FUR/05/9/09
- (6) Low height Partition Wall for Taramandal, Drg. No. CIVIL-07/11/2020
- (7) Shoe Rack, Drg. No. Fur-03/13/2020
- (8) Conference Table, Drg. No. Fur-01/11/2020
- (9) Reception Table, Drg. No. Fur-02/12/2020
- (10) Acoustic Wall Panelling of Auditorium, Drg. No. CIVIL-08/12/2020

All the above drawings are uploaded in .PDF format and the tenderers are required to download them.

3. Materials to be used in fabrication

- Structure: The supporting structure of the Cabinets, Panel/Partition and Reception Desk etc. shall be made of wooden framework using required section of seasoned C.P. Teak Wood viz. 75x25 mm (3"x1") / 50x50 mm (2"x2") / 50x25 mm (2"x1") / 25x25 mm (1"x1") as indicated in the respective drawings.
- Panelling materials: Inner and outer faces of all partition walls will be of 6 mm thick Phenol Formaldehyde Bonded, BWR quality and Termite resistant Plywood sheets duly covered with 1 mm thick laminate sheet of approved shade/colour and design. Top of the low height partition will be covered with teakwood curved beads as per drawing. Transparent Glass sheet, if any, shall be plain, distortion-free and of required thickness as per drawing.

Make/brand of Plywood sheet: Century / Sylvan Ply

Make/brand of Laminate sheet: Century / Greenlam / Merino

Make/brand of Glass sheet: Saint Gobain / Modi Float / Ashai

- o **Materials for furniture :** The furniture of different sections, as shown below, are to be fabricated using *seasoned* **C.P. Teak Wood** as skeletal structure, covered with Teak Wood plank and / or plywood sheet duly pasted with laminate sheet or painted / varnished and other items that are necessary as per drawing :
 - 1. Work Table in Workshop-3 nos. → Drg. Nos. FUR/01/5/09, FUR/04/8/09, FUR/02/6/09
 - 2. Work Stool in Workshop 6 nos. \rightarrow Drg. No. FUR/05/9/09
 - 3. Shoe Rack in Taramandal area 1 no. \rightarrow Drg. No. Fur-03/13/2020
 - 4. Conference Table in Conference Room − 1 no. → Drg. No. Fur-01/11/2020
 - 5. Reception Table in Reception Area, Drg. No. Fur-02/12/2020

o Acoustic Wall Panelling of Auditorium:

Inner wall of the Auditorium shall have Acoustic Panelling as per the following specification:

Fitting and fixing of wall panelling (one side) with 9 mm thick bevelled edge **Polyester Fibre Board** panel over supporting wood framework consisting of 50 x 25 mm C.P. Teak wood sections as horizontal and vertical members at 600mm C/C (Max). Gap between wall and 9 mm thick polyester fibre board shall be filled up with polyester wool insulation (25 mm thick) whose specification is given below. Polyester fibre boards shall be fitted over teakwood structure with SS screws/plugs. Shade and texture of board for wall panelling should be got approved by the competent authority.

Polyester Fibre Board Panel:

a) Size of each panel board: 600 mm x 600 mm

b) Surface finish: Matt
 c) Density: 200 kg/m³
 d) Thickness: 9 mm

e) Noise Reduction Coefficient (NRC): 0.80 f) Fire Rating: Euro class B and ASTM E-84-08

g) Thermal conductivity: 0.030 W/ m.k

Mode of measurement : Finished area of Polyester Fibre Board on wall shall be measured only.

Polyester Wool Insulation:

a) Thickness: 25 mm b) Density: 20 kg/m³

c) Thermal Conductivity: 0.034 W/m.k d) Acoustic insulation with NRC: 0.80

e) Fire retardant

f) Completely non-toxic and itch-free

g) Temperature range of -15 to 120 degree C.

Make/brand of Acoustic Fibre board :Armstrong/ Dexune / Times / Unitone/ SIPLA

Adhesive to be applied in the fabrication work for wood, plywood & laminate should be
of the brand Fevicol – SH manufactured by Pidilite Industries Limited.

4. General Instruction:

- 4.1 Fabrication work of the interiors has to be executed as per drawing. However, the contractor should, in addition to consulting the drawing, check the actual dimensions at site before fabrication. Any variation found thereof should be brought to the notice of the authority and got approved by the concerned authority before finally fabricating and installing the structures at site.
- **4.2** Please do not scale the drawings, as some parts of drawings may not be to the scale.

- 4.3 All joints used in the teakwood framework shall be 'Mortise & Tenon' or at least 'Half lap'. Simply jointing two wood sections using nails/screws should be avoided.
- **4.4** No part of the screws/nails should project out of any surface, outside or inside. They shall be flushed completely to the surface.
- **4.5** Laminate sheets, pasted on any two meeting surfaces, shall be mitred.
- 4.6 All the tools & tackles, instruments or any other devices/contrivances that are/may be required for proper and efficient execution of the fabrication job, shall be arranged by the contractor only.
- 4.7 Stage inspection and supervision shall be carried out on regular basis during the entire period of fabrication by the competent authority of this museum. Modifications pointed out during inspection and required for better design of the structures, should be carried out before finally completing the work and leaving the site.
- **4.8** Tenderer shall quote their rates only as per the format mentioned in Price Bid, Part II.

Signature of the Tenderer With signature and seal