

TENDER

FOR

***CONSTRUCTION OF PEB STRUCTURE FOR
MACHINE FABRICATION UNIT OF CENTRAL
ENGINEERING DIVISION AT AKKULAM FOR HLL
LIFECARE LIMITED***

**PART-III
PRICE BID**

**TENDER NO. HITES/IDS/16/02-A
MAY 2016**



**M/S HLL INFRA TECH SERVICES LTD. (HITES)
(SUBSIDIARY OF HLL LIFECARE LTD, A GOVERNMENT OF INDIA
ENTERPRISE)**

ADARSH, TC 6/1718, VETTAMUKKU, THIRUMALA P.O.

THIRUVANANTHAPURAM – 695006

PHONE: 0471-2365873/ 72

FAX: 0471-2368144

CONTENTS

S.NO	ITEM	PAGE NO.
1.	Commercial Conditions	2-4
2.	Special Conditions	5
3.	Bill of Quantities	12

1 COMMERCIAL CONDITIONS

- 1.0.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.
- 1.0.2 The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for **Construction of PEB structure for Machine Fabrication Unit of CED Unit at Akkulam for HLL Lifecare Limited**
- 1.0.3 The quoted price shall be inclusive of all taxes and duties whether payable by the contractor or to be deducted at source. This shall include those applicable among VAT, Sales Tax, Income Tax, Customs Duty, Excise Duty, Turnover Tax, Service Tax, Work Contract Tax, Octroi, Labour Welfare Cess Or any Other Taxes and Duties prevailing in respect of this contract. ANY BID STATING THAT TAXES ARE EXTRA WILL BE SUMMARILY REJECTED.
- 1.0.4 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/equipment, labour or any other reasons whatsoever during the contract period and valid extension on the case may be.
- 1.0.5 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

1.1 UNIT RATES

- 1.12 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

1.2 BRIEF DESCRIPTION OF PRICING

- 1.2.1. Unforeseen difficulties for which provision has not been made in the tender will in no way relieve the successful tenderer from the full execution of the work.
- 1.2.2 The price quoted shall be the final amount for this finished work.

1.3 INCOME TAX

Any payment to the contractor as per contract will be made after deducting income tax as per the rules and regulations.

1.4 SALES TAX AND EXCISE DUTY

The tenderer shall clearly indicate sales tax, Excise and other duties as applicable in his offer for carrying out this work.

1.6. SUBMISSION OF BILL

- 1.6.1. The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

1.7. EXTRA ITEMS

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the employer.

- 1.7.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

- 1.7.2 All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

1.8. OVER TIME WORK

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Engineer-in-charge. He should also provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

- 1.8.1. The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Engineer-in-charge on any point of dispute between the various parties shall be final and binding.
- 1.8.2. It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.
- 1.8.3. The contractor shall co-operate with other agencies appointed by the owners for the work to proceed smoothly with the least possible delay and to the satisfaction of the owners, architects and the consultants.
- 1.8.4. The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

2. SPECIAL CONDITIONS

1. Scope of Work

The scope of work is to construct a pre-engineered steel building adjacent to the CRDC building including Design, Engineering, and Preparation of erection drawings, design proof checking, manufacture, supply, loading, transportation, unloading and erection of the Pre-Engineered Building.

The following are also included in the scope of work:

- Rigid frame structural work for columns, rafters with end plates, purlins, girders etc
- All necessary flashings, trims, eave gutters, water resistant louvers and downspouts
- Insulated Roofing
- Side & End Wall cladding
- Structural hardware & sheeting fasteners, Concrete embedded plates.
- Bracing rods, flange braces, gable angles
- End lap sealant & bracing
- Anchor bolts and templates for the foundation
- Daylight panels
- Framed opening & canopy system
- Valley gutter system
- Painting of structural members
- Brackets to support the utility pipe lines & electrical cable trays
- Turbo air ventilators
- The design document is to be reviewed by reputed universities and should be submitted in hardcopy (3 sets) as well in softcopy(.DWG format).
- The price is to include all spare parts, documentation, packing, freight charges; start-up & commissioning, and charges whatsoever to complete the work in all respects to ensure the building in accordance with the requirements of design

documents. The quoted amount shall be inclusive of all applicable statutory taxes and levies.

Note:

- i. The structure is to include longitudinal rail for mounting of Electric Overhead Travel (EOT) crane of capacity 5.0 tonnes at a height of 6.0m from floor with command throughout the length and width of the structure (42.0m x 18.0m)*
- ii. The joint between the PEB structure and adjoining concrete building is to be sealed and made water-tight.*

2. Payment Terms

Supply

- i. 25 % of supply order value as advance will be released against submission of bank guarantee for equal amount and submission of Performance Security of 5% of contract value. The advance above bear simple interest at the rate of 10 per cent per annum
- ii. 35% - on prorata basis on delivery of materials at site
- iii. 40% - upon successful erection and commissioning at site

Erection

- i. 50% of erection order value against partial erection on prorata basis.
- ii. 50% of erection order value against completion and handing over.

3. Documentation:

Once appointed, the contractor shall provide the following for approval:

- i. List of makes / components
- ii. Shop drawings
- iii. Design proof checked details.
- iv. As Built drawings
- v. Structure Co-ordination drawing for approval before execution

TECHNICAL SPECIFICATIONS

Type	Tapered Column Clear Span
Width	18.00m o/o of steel line
Length	42.00m o/o of steel line
Eave Height	8 m clear height
Width Module	1 @ 18.00 m
Roof Slope	1 in 10
Bay Spacing	6 bays. For spacing refer drawing
Front end frame	Standard Post and Beam
Back end frame	Standard Post and Beam
Wind Bracing on roof	Diagonal Rod Bracing
Wind Bracing on wall	Diagonal Rod Bracing /Angle bracing (as per design) on LSW & PORTAL BRACING on RSW
Openings	3.0M Solid Block Wall & sheeted above all round 1 Nos. 6.0M(W) x 5.0M(H) rolling shutter
Wall Panels	26 G thick Hi-Rib SMP Coated Galvalume 550MPa
Roof Panels	26 G thick Single skin Hi Rib Bare Galvalume 550Mpa steel
Fasteners	Mechanically galvanized Hex-Washer head self-drilling fasteners with integral EPDM seals (ZINC -TIN alloy coated)
Flashing, trims	Shall be furnished at the rake, corners, eaves framed openings and wherever necessary to provide weather tightness and finished appearance. Material shall be 26 G thick conforming to the physical specifications of ASTM A446 Grade C or equivalent and having minimum yield strength of 40,000 P.S.I. (275 MPa).

Day light panels	Ultra Violet stabilized, fiber glass panels of 3.9 Kg/m ² . as per IS 8183, 50/100 mm thick, with a vapor barrier (foil scrim Kraft/ reinforced white vinyl/ reinforced white metalized film scrim kraft facing). Density shall be no less than 16 Kg/m ³ . 4 nos of daylight panels shall be provided at each panel, i.e., between each frame.
Framed opening	1 Nos. of framed opening of size 6.0m(w) X 5.0m(ht.) considered for Rolling shutter
Canopy	1 nos. canopy of size 3.0m (Projection) X 8.0m (Length) above rolling shutter
Paint Finish	All primary and secondary members shall be supplied with one coat of zinc chromate red oxide primer (ZINC SILICATE PRIMER) and two coats of synthetic enamel paint (brush applied) at site.
Special conditions	All walls clad to full height above 3.0 m high block masonry wall (by separate agency).
Building condition	Enclosed.
Roof Vents	Turbine Vents externally braced 28 inches in diameter for each bay near the ridge line. 1 no of Turbo vents shall be provided at each panel. The turbo vents shall be of reputed make and shall be got approved by the engineer in charge before actual supply.
Eave Gutter	26 G Colour galvalume gutters as per Rain fall intensity as applicable. Box shaped, color coated, and 0.5 mm nominal thickness (26 gauge) galvanized steel. The outside face of the gutter shall be supported with color coated 0.5 mm nominal thickness (26 gauge) galvanized straps to the eave member at a maximum spacing of 1.2 m. Should be provided on both sides.
Down Spouts	Downspouts shall be rectangular shaped, color coated 0.5 mm nominal thickness (26 gauges) galvanized steel. Downspouts shall have a 45 degree elbow at the bottom and shall be supported by attachment to the wall covering at 3.0 m maximum spacing. Should be provided on both sides. 4 nos of down water pipes to be provided in the valley gutter to take the water down to the floor level drain
Sealer/ rope seal	To be applied at all side laps and end laps of roof panels and around self flashing windows. Sealer shall be 6 mm wide x 5 mm thick, asbestos fibre filled, pressure sensitive Butyl tape. The sealer shall be non asphalted, non shrinking non drying and non toxic and shall have superior adhesion to metals, plastics and painted surfaces at temperatures from - 51 deg. 'C' to + 104 deg. 'C'.

Closures / filler strips	Solid or closed cell E.T.P. (Ethylene Polypropylene Terpolymer) closures matching the profile of the panel shall be installed along the eaves, rake and wherever required
Insulation (Roofing)	Fiberglass insulation is as per IS 8183, 50 mm thick, with a vapor barrier (foil scrim Kraft/ reinforced white vinyl/reinforced white metalized film scrim kraft facing / Aluminium facing) with GI of Aperture size 75mmX75mmX1.6 mm thickness. Density shall be no less than 16 Kg/m ³ .
Rolling shutters	Rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 part-1 and M.S. top cover of required thickness for rolling shutters, ball bearing, mechanical device chain, crank operation, 80x1.20mm M.S. laths with 1.20mm thick top cover
<u>Design Loads (Live / Wind)</u>	
The building is designed for the following Live Load and Wind Speed	
Live Load	0.75KN/m ²
Wind Speed	39 m/sec (as per IS 875 Part III) 1987
(Seismic Zone Zone (Z))	III (0.16) (as per IS 1893) 2002
<u>Deflections</u>	
Vertical	L/180
Lateral	EH/150 (HORIZONTAL: H/200)
Purlins	L/150
<u>Applicable Codes</u>	
Loads are applied in accordance with:	The 1996 Edition of Low Rise Building System Manual
	Metal Building Manufacturers Association (MBMA)
	IS 875(all parts)

Hot rolled and Built up sections are designed in accordance with:	Manual of Steel Construction, 9th Edition
	American Institute of Steel Construction (AISC)
	IS 800-2007
Cold-formed members are designed in accordance with:	1996 Edition of Cold formed Steel Design Manual
	American Iron and Steel Institute (AISI)
	IS 800-2007
Welding is applied in accordance with:	American Welding Society (AWS D1.1.2008)
	Structural Welding Code - Steel
	IS 800-2007
<u>Standard Supplied Items</u>	
The following are included in the scope of work:	
Rigid frame structure for columns, rafters with end plates, purlins and girts.	
All necessary flashings, trims, eave gutters and downspouts	
Valley Gutter System	
Roofing & cladding sheets	
Structural hardware & sheeting fasteners	
End lap sealant & bracing	
Concrete embedded plates, Anchor bolts and templates shall be dispatched to civil contractor for safe custody.	
Day light panel	
Framed opening & canopy system	
All primary and secondary members shall be supplied with one coat of zinc chromate red oxide primer and two coats of synthetic enamel paint (brush applied) at site.	

BILL OF QUANTITIES

SL. NO	DESCRIPTION	AMOUNT
I	Supply of PEB Structure for Machine Fabrication Unit for Central Engineering Division at Akkulam	
1	Design, Manufacturing and supply of PEB building systems (Primary members, Secondary Members, crane running girder, wall panels, insulated roof panels, flashings, day light panels, gutter, down spout, turbo ventilators, rolling shutters as per the technical specifications and drawings	
2	Freight	
3	KVAT/CST (No C form will be issued)	
	TOTAL FOR SUPPLY	
II	Erection of PEB Structure for Machine Fabrication Unit for Central Engineering Division at Akkulam	
1	Installation of PEB building systems (Primary members, Secondary Members, crane running girder, wall panels, insulated roof panels, flashings, day light panels, gutter, down spout, turbo ventilators, rolling shutters and painting	

2	Service tax as applicable	
	TOTAL FOR ERECTION	
	GRAND TOTAL- SUPPLY + ERECTION	