

Tender Ref: 6300038640

Date:11.12.2023

	Period of contract:	Twenty Four Months (24 Months)
ISSUED TO:	EMD :	Rs. 48,000/-

Sub: Maintenance Contract for 2 years for "Repairs/Replacement & Maintenance of existing AC/GI/Galvalume roof sheets and associated Civil works in various hangars at Bangalore Complex, BEML Limited, Bangalore.

SCHEDULE 'A' - BILL OF QUANTITIES

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
1	Dismantling/Removing the existing corrugated/semi-corrugated AC/GI/ FRP roof sheets including 'J' bolts, washers carefully at various heights (10m to 14 m approximately) from the existing MS roof members, stacking the usable sheets at a place shown and shifting the unusable roof sheets to salvage stores inside the factory premises etc., complete all as specified & directed by the Engineer-in-charge. Note: -a) Clear area of roof sheet excluding lap length shall be measured for payment. b) The rate quoted is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Sq.M	900		
2	Dismantling/Removing the existing corrugated/semi-corrugated Asbestos Cement curves including 'J' bolts, washers carefully at various heights (10m to 14 m approximately), stacking the usable curves at a place shown and shifting the unusable roof curves to salvage stores inside the factory premises etc., complete all as specified & directed by the Engineer-in-charge. Note: -a) Clear area of curve sheet excluding lap length shall only be measured for payment. b) The rate quoted is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Sq.M	200		
3	Refixing back in position the available/slided Asbestos Cement corrugated /semi-corrugated/GI roof sheets wherever noticed by loosening the adjoining sheets and providing & fixing using new hardware items such as J/L bolts, screws, washers at various heights (10m to 14 m approximately) etc., complete all as specified and as directed by Engineer in charge. Note: a) Clear area of AC/GI sheet fixed in position excluding lap length shall only be measured for payment. b) The rate quoted is deemed to include for Providing & removal of scaffolding, staging, safety nets wherever necessary.	Sq.M	400		
4	Supplying and fixing in position new 6mm thick Asbestos Cement corrugated sheets at various heights (10m to 14 m approximately) of approved quality of M/s Charminar/Swastik/Everest make conforming to relevant IS for roofing/cladding wherever necessary including fixing with new L / J hook bolts of minimum 150mm length galvanised with bitumen washers etc., complete all as specified and directed by Engineer-in-charge. Note:- a) Clear area of roof sheet fixed in position excluding lap length shall be measured for payment. b) The rate quoted is deemed to include for Providing & removal of scaffolding, staging, safety nets wherever necessary.	Sq.M	700		
5	Supplying and fixing in position new corrugated/semi-corrugated Asbestos Cement north light curves at various heights (10m to 14 m approximately) of approved quality of M/s Charminar/Swastik/Everest make conforming to relevant IS fixed with new L / J hook bolts etc.,complete all as specified and as directed by Engineer in charge. Note:- The rate quoted is deemed to include for Providing & removal of scaffolding, staging, safety nets wherever necessary.	Rmt	150		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
6	Supplying and fixing in position new 0.6mm thick corrugated Galvanised Iron roof sheets at various heights (10m to 14 m approximately) of approved quality of M/s TATA/JSW make conforming to relevant IS fixing using new hardware items such as J/L bolts/self tapping screws, washers etc., complete all as specified and as directed by Engineer in charge. Note:- a) Clear area of GI sheet fixed in position excluding lap length shall only be measured for payment. b) The rate quoted is deemed to include for Providing & removal of scaffolding, staging, safety nets wherever necessary.	Sq.M	100		
7	Supplying & fixing in position new rough cast wired glass of 6.0mm thick at various heights (10m to 14 m approximately) of approved quality conforming to relevant IS and glazing with oil putty, glazing clips/bars and required hardware tools & tackles and fixed firmly to the frames etc., complete all as specified and as directed by Engineer in charge. Note: The rate quoted is deemed to include for Providing & removal of scaffolding, staging, safety nets wherever necessary.	Sq.m	100		
8	Supplying & fixing 0.6mm thick Galvalume single skin HI-Rib trapezoidal/approved profile PPGL colour coated sheet for roof of approved color & shade, 1060mm supply width, 975mm-1000mm covered width 29mm-30mm crest height, 24mm crest width with min. 195mm-200mm pitch minimum 0.50mm thick TCT, Galvalume(55% aluminum-43%Zinc Coating), 150 GSM with minimum yield strength of 550 Mpa. The sheet shall have wide pans with stiffening ribs manufactured by M/s JSW/TATA. The sheet shall be fixed by means of anticorrosive self drilling self tapping mechanically galvanised fasteners with integral EPDM washers. The scope shall include all sealing of joints, curves, edges or other accessories with silicon sealant. The sheet shall be laid with a minimum lap of 150mm at the ends and special male & female lapping at each side. The minimum lap of sheets with ridges, hips & valleys shall be 200mm. The sheets shall be secured to purlins by means of self driven screws or GI J or L hook bolts and nuts with bitumen and GI limpet washer as per the requirement of site and as directed, etc , complete all as specified and as directed by Engineer in charge. Note:- 1) The finished/Covered area of roof sheet excluding lap length shall be measured for payment. 2) The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder wherever necessary and protective measures etc.	Sq.M	100		
9	Taking down the existing AC/CI/PVC rain water pipes of any diameter including all fittings and Providing & fixing 160mm diameter 6kg/cm ² PVC pipes manufactured by M/s.Supreme/ Astral or equivalent conforming to relevant IS for rain water downtake laid in gradient in walls including all standard PVC Fittings like elbows, bends, tees, PVC Shoe, PVC clamps wooden plug, screws, washers etc., fixed/secured firmly etc.,complete all as specified and directed by Engineer in charge. Note: The rate quoted for the item deemed to include for Providing & removal of scaffolding, staging, safety nets wherever necessary etc.	RMT	350		
10	Cleaning the existing rain water Gutters inside the hangars at various heights (10m to 14 m approximately) using wire brushes, including removal of dust, grime, muck, debris & other foreign material laying over gutters including disposal of debris outside the site premises to a distance not exceeding 5.0KM not objected by local civil authorities including lead, lift etc., complete all as specified & directed by Engineer in Charge.	RMT	2000		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
11	Providing and applying water proofing to the gutters of approximate width 1.2m as per the following procedure: a) Cleaning the gutter surface to make it free from all debris, loose particles/ dust, and filling of any visible holes with metal putty. Any gaps between the overlap joints of the gutters to be filled with single component PU sealant. b) Applying primer of M/s. STP(Shaliprime PUM) with bursh @ 200ml per sqm and allowed to dry. c) Providing cold PU liquid of M/s. STP(ShaliUrethane LHM) to form a high tensile elastomeric membrane at 0.8kg/m with brush d) Applying 2nd coat of cold PU liquid of M/s. STP(ShaliUrethane LHM) to form a high tensile elastomeric membrane at 0.8kg/m with brush after the 1st coat has completely dried. Note: The rate quoted is deemed to include for scaffolding, staging/ladder & providing safety nets wherever necessary and protective measures etc.	Nos.	100		
12	Carting away the damaged roof sheets, curves, debris, muck, broken glasses etc., and disposal of debris outside the site premises to a distance not exceeding 5.0KM not objected by local civil authorities including lead, lift etc., complete all as specified & directed by Engineer in Charge.	Cum	40		
13	Supplying and fixing 2mm uniform thickness corrugated polycarbonate sheet manufactured by M/s.Tuflite/Lexon/Equivalent make for roof conforming to relevant IS with necessary hardware screws/ washers and sealant, sheets fixed to suit the existing galvalume roof sheet profile such that no leakage occurs etc., complete all as specified and directed by Engineer in charge. Note: The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder wherever necessary and protective measures etc.	Sqm	100		
14	Supplying, fabricating and fixing in position 3mm thick GI funnels of required diameter to fix to rain water gutters including welding to the gutters to ensure a leak proof joint with necessary hardware items, silicon sealant etc complete all as specified & directed by the Engineer-in-charge.	Nos.	20		
Total value of work excluding GST (Rs).					
GST (Rs).					
Total value of work inclusive of GST (Rs)					

Note:

1) The work shall be carried as when required for a period of 2 years
2) The work shall be carried out at various heights of 10 to 14 approximately.
3) The work shall be carried out after observing all safety precautions and after obtaining safety work permit for the day's work as per BEML Safety norms & policy.
4) The Contractor is solely responsible for safe execution of work and work shall be carried out strictly under supervision of qualified technical personnel of the Contractor till the completion of days work.
5) It is responsibility of the contractor to provide all safety / PPE for the labour/ workmen employed for the work and the work to be carried out after obtaining necessary safety permit as per BEML format for the day's work.
6) The contractors/ prospective bidders shall visit the site and acquaint themselves with the site conditions before submission of bid/ quote.

(Total Amount in words Rupees.....
.....)

Signature of the Contractor with seal