

TENDER REF: 6300037897		Date: - 29.08.2022
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ISSUED TO:	PERIOD OF CONTRACT	Seven (07) MONTHS
	EMD: -	Rs. 3,83,311/-

Sub:- Renovation/Refurbishing of Bogie & Underframe hangar by replacing the existing old roof sheets, rain water down take pipes, gutters & miscellaneous civil works at Bangalore Complex, BEML limited Bangalore 560075

SCHEDULE 'A' BILL OF QUANTITIES

Sl. no	Description	Unit	Qty.	Rate/ Unit in fig. & in words Rs.	Amount Rs.
1	Removing the existing corrugated/semi-corrugated AC/GI/ FRP roof sheet including 'J' bolts, washers carefully at a minimum height of 10Mtrs approximately, 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/safetynets wherever necessary.	Sq.M	8850		
2	Removing the existing corrugated/semi-corrugated AC curves including 'J' bolts, washers carefully at a minimum height of 10Mtrs approximately, stacking the usable curves at a place shown & handing over to civil maintenance department 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/safetynets wherever necessary.	Sq.M	600		
3	Taking down/dismantling the broken north light glass carefully from the MS/metal frames by hacking out old putty beads including making good breakages if any in taking out etc., complete all as specified & directed by the Engineer-in-charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Sq.M	75		

Sl. no	Description	Unit	Qty.	Rate/ Unit in fig. & in words Rs.	Amount Rs.
4	Taking down the existing AC/GI rain water down take pipes of any diameter including all fittings, etc., including stacking the usable material to civil maintenance department etc., complete all as specified and directed by the Engineer-in-charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safetynets wherever necessary.	RM	1033		
5	Removing the existing GI/AC/aluminium gutter from the existing steel members including removing the supports if necessary & handing over to civil maintenance department and stacking at a place shown etc., complete all as specified and directed by the Engineer-in-charge	RM	220		
6	Dismantling the existing brick masonry wall built in Cement mortar in any thickness & disposal of unserviceable materials from the premises with a lead up to 50Mtrs etc., complete all as specified and directed by the Engineer-in-charge. Note: The dismantled materials shall be removed immediately from the premises without disturbing the regular production activities.	Cu.M	10		
7	Supplying & fixing 0.6mm thick M/s. JSW/TATA make trapezoidal profile colour coated (sky blue) roof sheets 1060mm supply width, 975mm-1000mm covered width 29mm-30mm crest height, 24mm crest width TCT 150 GSM with 550 Mpa minimum tensile strength, with a minimum lap of 200mm with wide pans with stiffening ribs for efficient water shedding & special male/female ends conforming to relevant IS including all hardware/fixtures viz., nylon head self tapping corrosion protected mechanically galvanised fasteners with integral washer etc , complete all as specified and as directed by Engineer in charge. Note: a) The finished/Covered 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	8770		
8	Supplying and fixing of GI weld mesh of 50x50x2.50mm support for rock wool, welded to existing steel members with correct line and level etc., complete all as specified and directed by Engineer-in-Charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Sq.M	8350		

Sl. no	Description	Unit	Qty.	Rate/ Unit in fig. & in words Rs.	Amount Rs.
9	Supplying and fixing of 50mm thick thermal insulation with Resin bonded fibre rock wool of density 24Kg/CM, wrapped in vinyl facing placed below the roof sheeting etc., complete all as specified and directed by Engineer-In-Charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Sq.M	8350		
10	Supplying and fixing 0.6mm thick M/s. JSW/TATA make Galvalume north light curves (55% aluminum-43%Zinc Coating), TCT 150 GSM with 550 Mpa minimum tensile strength conforming to relevant IS including all hardware/fixtures viz., nylon head self tapping corrosion protected mechanically galvanised fasteners with integral washer etc , complete all as specified and as directed by Engineer in charge. Note:- a) Clear area of roof curve excluding lap length shall be measured for payment. b) Providing & removal of scaffolding, staging, safety nets wherever necessary.	RM	600		
11	Supplying and fixing M/s. Bayers / JSW / Everest make corrugated 2mm uniform thickness polycarbonate sheet for roof conforming to relevant IS fixed to the existing galvalume sheet to suit the profile with necessary hardware screws/washers and sealant to ensure leak proof joints etc., complete all as specified & directed by Engineer in charge. Note:- Clear a) area of roof sheet excluding lap length shall be measured for payment. b) The rate quoted for the item is deemed to include Providing & removal of scaffolding, staging/staging wherever necessary.	Sq.M	70		
12	Supplying fabricating and fixing MS steel brackets to support for Gutter/ down take pipes using MS structural steel angles, plate, channels etc including welding to the existing MS members etc., complete including welding tools, tackles, screws etc., complete all as specified & directed by Engineer in charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Kgs	1500		
13	Supplying and fixing M/s. Bayers / JSW/ Everest make plain 2mm thick uniform thickness polycarbonate sheet for north light glass conforming to relevant IS fixed to the existing MS Structural steel frames with necessary hardware screws/washers and sealant, etc., complete all as specified & directed by Engineer in charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safety nets wherever necessary.	Sq.M	75		

Sl. no	Description	Unit	Qty.	Rate/ Unit in fig. & in words Rs.	Amount Rs.
14	Supplying and fixing 0.50mm thick Gal valume ridge sheet, fixed to the existing MS structural steel members etc including all hardware/ fixtures like nylon head self tapping corrosion protected mechanically galvanised fasteners with integral washer etc , complete all as specified and as directed by Engineer in charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding, staging/safetynets wherever necessary.	RM	55		
15	Supplying and fixing 0.50mm thick Gal valume flashing sheet, fixed to the MS structural steel members etc including all hardware/ fixtures like nylon head self tapping corrosion protected mechanically galvanised fasteners with integral washer etc , complete all as specified and as directed by Engineer in charge. Note:- The rate quoted for the item is deemed to include for Providing & removal of scaffolding,staging/safetynets wherever necessary.	RM	55		
16	Providing & fixing 150mm diameter 6kg/cm2 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, tail pieces & fixtures such as pipe clips, 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 wherever necessary etc.	RM	800		
17	Providing & fixing 200mm diameter 6kg/cm2 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, tail pieces & fixtures such as pipe clips, 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 wherever necessary etc.	RM	172		
18	Supplying, fabricating and fixing 3mm thick GI valley gutter of approximate width 1.50Mtr including bending to the required profile to suit the site conditions, welding and erecting to the required height & to the correct line and level and making the joints water tight using suitable sealant/adhesives etc., complete all as specified and directed by Engineer in charge.	RM	150		

Sl. no	Description	Unit	Qty.	Rate/ Unit in fig. & in words Rs.	Amount Rs.
19	Preparing the existing GI/AC/Aluminium gutters of approximate width 1.0m by cleaning, removing dust, grime etc., and providing waterproofing treatment to the gutters using suitable waterproofing compound manufactured by M/s. Fosroc/STP/SIKA/Roff for the full gutter area as per manufacturers specifications and instructions. Note: a)The rate is deemed to include for cleaning the gutters to the full length before carrying out the treatment. b)The length of the gutter wherever treated shall only be measured for payment.	Sq.M	600		
20	Providing and constructing 230mm thick/required thickness burnt brick masonry in cement mortar of mix proportion 1:6 using first class table moulded bricks for superstructure at required heights including tools & tackles, curing etc., complete all as specified & directed by Engineer in charge. Note: The rate quoted is deemed to include for providing & removal of scaffolding,staging/safetynets wherever necessary.	Cu.M	10		
21	Rendering/Plastering for the internal brick masonry wall / concrete surfaces in cement mortar of mix proportion 1:4, 15mm thick including tools & tackles, scaffolding as required for the work, necessary curing etc., complete as specified and directed by Engineer in charge. Note: The rate quoted is deemed to include for providing & removal of scaffolding/staging wherever necessary.	Sq.M	100		
22	Rendering/Plastering for the external brick masonry wall / concrete surfaces in cement mortar of mix proportion 1:6, 20mm thick including tools & tackles, scaffolding as required for the work, necessary curing etc., complete as specified and directed by Engineer in charge. Note: The rate quoted is deemed to include for providing & removal of scaffolding/staging wherever necessary.	Sq.M	100		
23	Preparing the existing old Painted external walls by scrapping, sand papering, including providing necessary repairs to cracks, scratches & filling the cracks with crack filling compound and cleaning the surface from dust, dirt and applying two coats of Exterior emulsion paint of first quality approved brand & colour manufactured by M/s.Asian Paints (ACE)/M/s Berger Paints (Wall Masta) over a coat of primer & touch up putty wherever necessary etc., complete all as specified and as directed by Engineer in charge.	Sq.M	200		
24	Carting away the damaged roof sheets, curves, debris, muck, broken glasses etc and dumping at a place shown outside the factory within a lead not exceeding 5.00Km etc., complete all as specified & directed by the Engineer-in-charge.	Cum	20		

Sl. no	Description	Unit	Qty.	Rate/ Unit in fig. & in words Rs.	Amount Rs.
25	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.	No.	20		
	Total Amount excluding GST (Rs)				
	GST Amount (Rs)				
	Total Amount inclusive of GST (Rs)				

Total Amount in words: -

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THE FOLLOWING NOTES ARE APPLICABLE FOR ALL THE ABOVE MENTIONED ITEMS OF WORK
1) The contractor quoted rate is deemed to include for providing and removal of scaffolding/ staging as required for all the above mentioned works.
2) The contractors/ prospective bidders shall visit the site and acquaint themselves with the site conditions before submission of bid/ quote.
3) The contractor to note that the dismantled materials should be removed and shifted immediately from the site premises without disturbing the regular production activities in the area and in the adjoining hangers and the rate is deemed to include for the same.
4) The labour employed for the work should be covered under ESI & PF
5) since the work has to be carried out at a minimum height of 10.0 Mtrs, 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 days work.
6) The work has to be carried out on a day to day basis by the contractor under the supervision of the contractor himself or under the supervision of a qualified technical personnel employed by the contractor till the completion of the days work.

Signature of the contractor  
with seal