

BEML LIMITED, BANGALORE

TENDER REF: 6300038504

Date: 07.08.2023

ISSUED TO:	Period of contract:	Six Months (06 Months)
	EMD :	Rs. 1,40,000/-
Defect Liability Period : Three Years (03 Years)		

Sub: RENOVATION OF OFFICE BUILDINGS - MRO, INSPECTION, PRODUCTION CONTROL DEPARTMENT, IED AND DEFENCE MARKETING, 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	Preparing the new/old Painted surface of external walls including stucco area by water washing, sand papering/wire brushing including providing necessary repairs to cracks, and cleaning the surface from dust, dirt and filling/closing the cracks with suitable crack filling compound and applying two coats of exterior emulsion paint of first quality approved brand and colour manufactured by M/s.Asian Paints (ACE)/Berger Paints (Wall Masta) after successively drying each coat over a coat of primer and touch up putty wherever necessary 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, suspending jhoola wherever required and protective measures etc.	Sqm	4000.00		
2	Preparing the existing old painted surface of internal walls by scrapping, sand papering/wire brushing including providing necessary repairs to cracks and filling the cracks with suitable crack filling compound and applying two or more coats of oil bound washable Distemper of first quality approved brand & colour manufactured by M/s. Asian Paints/Berger Paints conforming to relevant IS over a coat of primer and touch up putty wherever necessary etc., complete all as specified and as directed by Engineer in Charge. Note: The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder, suspending jhoola wherever required and protective measures etc.	Sqm	2000.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
3	<p>Preparing the existing old painted surface of internal Ceilings by scrapping, sand papering/wire brushing including providing necessary repairs to cracks and filling the cracks with suitable crack filling compound and applying two or more coats of Oil bound washable Distemper of first quality approved brand & colour manufactured by M/s. Asian Paints/Berger Paints conforming to relevant IS over a coat of primer and touch up putty wherever necessary etc., complete all as specified and as directed by Engineer in Charge.</p> <p>Note: The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder, suspending jhoola wherever required and protective measures etc.</p>	Sqm	1600.00		
4	<p>Removing/Hacking out old plastering from existing walls,ceilings,chajjas built in cement mortar in any thickness to receive new plaster etc.,</p> <p>Note: The rate quoted is deemed to include disposal of debris/unserviceable surplus earth outside the site premises to a distance not exceeding 5.0KM not objected by local civic authorities including lead ,lift etc,complete all as specified and directed by Engineer in charge.</p>	Sqm	500.00		
5	<p>Preparing the existing old painted surface of internal walls by scrapping, sand papering/wire brushing including providing necessary repairs to cracks and filling the cracks with suitable crack filling compound and applying two or more coats of Synthetic enamel paint of first quality approved brand & colour manufactured by M/s. Asian Paints/Berger Paints conforming to relevant IS over a coat of primer and touch up putty wherever necessary etc., complete all as specified and as directed by Engineer in Charge.</p> <p>Note: The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder, suspending jhoola wherever required and protective measures etc.</p>	Sqm	600.00		
6	<p>Preparing the existing old Painted of steel surface like window grills, staircase handrails, rolling shutters and doors etc, by scrapping, including necessary repairs to cracks, scratches and cleaning the surface from dust/dirt, and applying two coats of synthetic enamel paint manufactured by M/s.Asian Paints/Berger Paints over a coat of red oxide/yellow oxide zinc chromate primer to achieve a smooth finished surface etc., Complete all as specified and as directed by Engineer in Charge.</p> <p>Note: The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder, suspending jhoola wherever required and protective measures etc.</p>	Sqm	750.00		
7	<p>Supplying and mixing M/s Fosroc make CONPLASTX42IC/WL Water proofing chemical in cement mortar for rendering the roof slab,chajja and parapet wall surfaces as per manufacurers instructions (200ml/bag of cement) etc, complete all as specified and directed by Engineer in Charge.</p>	Ltrs	70.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
8	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/ladder wherever necessary and protective measures etc.	Cum	15.00		
9	Providing & fixing 110mm diameter 6kg/cm ² PVC pipes manufactured by M/s. Supreme/ Astral or equivalent conforming to relevant IS for rain water pipe, laid in gradient in walls including all standard PVC fittings like elbows, bends, Tee, PVC Shoe & 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 is deemed to include for providing and removal of scaffolding/staging wherever necessary.	Rmt	260.00		
10	Complete removal of existing APP Membrane carefully without damaging the RCC slab/parapet wall etc., and stacking at a place all as shown for disposal etc., complete all as specified and directed by Engineer in charge. Note: The rate quoted is deemed to include disposal of debris/unserviceable materials outside the site premises to a distance not exceeding 5.0KM which is not objected by local civic authorities including lead, lift etc., complete all as specified and directed by Engineer in charge.	Sq.M	1250.00		
11	Complete removal of existing cement mortar/ plastering of any thickness provided over the roof slab, parapet wall & chajja carefully without damaging the structure and stacking at a place all as shown for disposal including lead/lift etc., complete all as specified and directed by Engineer in charge. Note: The rate quoted is deemed to include disposal of debris/unserviceable materials outside the site premises to a distance not exceeding 5.0KM which is not objected by local civic authorities including lead, lift etc., complete all as specified and directed by Engineer in charge.	Sq.M	1250.00		
12	Cleaning the existing roof slab using wire brushes and applying a coat of cement slurry with cement 3Kg/Sqm. area over the thoroughly cleaned roof slab as a preparatory course before rendering etc., complete all as specified and directed by Engineer in Charge.	Sq.M	1250.00		
13	Rendering/ plastering over RCC roof slab/parapet wall, chajja surface in cement mortar of mix proportion 1:4, 20mm thick with proper slope & gradient, admixed with M/s fosroc make CONPLAST X42IC/WL (200ML/Bag of cement) etc., complete all as specified and directed by Engineer in Charge. Note: Conplast X42IC/WL water proofing chemical shall be measured & paid separately under relevant item.	Sq.M	1750.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
14	<p>Providing and laying 5 course water proof treatment by using 4mm thick Atatic Polypropylene (APP) Membrane of M/s Shalimar Tar Products (STP)/Sika or equivalent brand for the roof/parapet wall by preparing the surfaces by cleaning/removing all foreign matter by wire brushing etc, removing of old damaged plastering / concrete if any & making good, providing & applying bonding agent of M/s. STP - SBR Latex and cement mortar 1:4 @ the rain water pipe outlets, after cleaning the gap, washing & saturating with water. Providing 75mmx75mm PCC 1:2:4 coving at the roof & parapet joints admixed with suitable admixture of M/s STP Shaliplast & Shali SBR Latex as bond coat.</p> <p>i) Applying a coat of Bituminous primer conforming to relevant IS at the rate of 0.40 Litres/Sqm.</p> <p>ii) Providing Hot applied bitumen of grade 90/15 conforming to relevant IS at the 1.20Kg/Sqm for roof and parapet surfaces over the primer surface.</p> <p>iii) Providing 4mm thick APP membrane sheet reinforced with polyester non-woven fabric, (The weight of the membrane shall not be less than 3.9Kg/Sqm) fixed neatly on the hot applied bitumen surface for proper bonding using torching method. The lap joint shall be minimum 75mm width for horizontal & 100mm for vertical surfaces.</p> <p>iv) Providing Hot applied bitumen of grade 90/15 conforming to relevant IS at the rate 1.20Kgs/Sqm for roof and parapet surfaces as a sealing coat.</p> <p>v) Providing and applying 2 coats of heat resistant aluminium paint at the rate of 0.10 litre/Sqm. for each coat on the bitumen surface.</p> <p>Note: -i) Clear flat area of roof surface and vertical area of parapet surface covered with water proofing (APP) only will be considered for the purpose of measurements and laps for every joint will deemed to be included in the quoted rate and no extra measurement will be entertained for the laps. ii) Lap joints shall be minimum 75mm width for horizontal and 100mm width for vertical surfaces and joints shall be sealed thoroughly by proper torching. iii) All materials like bituminous primer, bitumen of grade 90/15, APP membrane as specified shall be from reputed manufacturer approved by BEML, Prior approval of BEML for sample shall be obtained before commencing the work. The necessary test certificate from the manufacturer shall be submitted.</p>	Sq.M	1250.00		
15	Dismantling the existing old window glass and Supplying and fixing new 5.5 mm thick plain sheet glass conforming to relevant IS of M/s. Saint Gobain /equivalent, to the existing window panes and glazing with oil putty, firmly secured etc., complete all as specified as as directed by the Engineer in Charge.	Sq.M	200.00		
16	Supplying and fixing GI mosquito proof mesh 1.0mm to 2.0mm nominal dia of wire of 22 gauge of approved make, etc., complete all as specified as as directed by the Engineer in Charge.	Sq.M	100.00		
17	<p>Demolition/ dismantling the existing BBM Walls in any description and height, including disposal of debris/unserviceable material outside the site premises to a distance not exceeding 5.0 KM which is not objected by local civic authorities including lead ,lift etc,complete all as specified and directed by Engineer in charge.</p> <p>Note: The dismantled materials shall be removed immediately from the premises without disturbing the regular production activities .</p>	Cum	5.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
18	Earthwork excavation by mechanical/ manual means in foundation trenches, pits not exceeding 1.50m in depth in all kinds of soil including getting out the excavated earth, dressing of sides, dewatering ground water/ rain water if any, compaction including disposal of debris/unserviceable surplus earth outside the site premises to a distance not exceeding 5.0KM not objected by local civic authorities including lead ,lift etc,complete all as specified and directed by Engineer in charge.	Cu.M	8.00		
19	Providing and laying in Position Plain Cement Concrete M 7.5 grade 1:4:8 using 40mm graded down size granite aggregate, machine mixed, well compacted for foundation bed, under floors and other similar works including curing 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 and removal of form work/centering/shuttering wherever necessary.	Cu.M	2.00		
20	Providing and laying in Position Plain cement concrete M15 grade 1:2:4 using 20mm graded down size granite aggregate, machine mixed, laid in layers with proper slope for roof slab, flooring & other similar works including finishing the top surface smooth & even by using extra cement, including curing, compacting etc.,complete all as specified and directed by Engineer in Charge. Note: The rate quoted for the item is deemed to include for providing and removal of form work/centering/shuttering wherever necessary.	Cu.M	100.00		
21	Rendering/Plastering 15mm thick in Cement Mortar 1:4 on fair faces of brick or concrete surfaces including finishing the surface smooth and even including curing,tools & tackles at all levels and height etc., complete all as specified and directed by Engineer in charge. Note:- The rate quoted for the item shall deemed to include for providing and removal of scaffolding/staging whever necessary.	Sqm	200.00		
22	Preparing the existing surface by cleaning, hacking etc., & Supplying and fixing Anti skid ceramic coloured floor tiles of minimum 300 mmX300 mmx8mm thick or bigger size of approved colour/pattern laid over a bedding layer of CM 1:4,15mm thick manufactured by M/s Naveen/Kajaria/Somany or equivalent approved make to proper slope and joints neatly finished and pointed with jointing powder of matching colour pigment etc., Complete all as specified and directed by Engineer-in-Charge. Note: 1)The rate quoted is deemed to include for all wastages. 2) Wastagas 3) The basic cost of tiles shall not be less than Rs 60/sft.	Sqm	30.00		
23	Supplying and fixing coloured ceramic dado tiles of minimum size 450mm x 350mmx7mm thick or bigger size of approved colour/pattern laid over a backing coat of Cement Mortar 1:4,15mm thick manufactured by M/s Naveen/Kajaria/Somany or equivalent approved make and joints neatly finished and pointed with jointing powder of matching colour pigment etc., complete all as specified and directed by Engineer-in-Charge. Note: 1) The rate is deemed to include for providing a dubbing coat of 15mm thick in Cement Mortar 1:6 on irregular face of walls. 2) Wastages. 3) The basic cost of tiles shall not be less than Rs 60/sft.	Sqm	50.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
24	Supplying and Laying the 20mm diameter, heavy grade CPVC water tubing manufactured by M/s.Supreme/Astral/Ashirwad/equivalent approved make, laid in required length/gradient in walls, flooring & trenches including all standard CPVC fittings such as elbows, collars, Tees, MTA, FTA, PVC Clamps including cutting & making good the floor/walls with cement mortar wherever necessary 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 wherever necessary.	Rmt	50.00		
25	Supplying and fixing 15 mm diameter brass chromium plated quarter turn Angle cock/ Stop cock of first quality approved brand manufactured by M/s.ESS ESS /Parryware/Johnson/Hindware or equivalent make including all accessories conforming to relevant IS etc., complete all as specified and directed by Engineer in Charge.	No	2.00		
26	Supplying and fixing 15mm diameter brass chromium plated quarter turn short body Bibcock of first quality approved brand manufactured by M/s.ESS ESS/Parryware/ Johnson/Hindware or equivalent make including all accessories conforming to relevant IS etc., complete all as specified and directed by Engineer in Charge.	No	2.00		
27	Supplying & fixing 15mm diameter brass chromium plated quarter turn 2 in 1 Bib cock of first quality approved brand manufactured by M/s.ESS ESS/Parryware/ Johnson/Hindware or equivalent make including all accessories conforming to relevant IS etc., complete all as specified and directed by Engineer in Charge.	Nos	1.00		
28	Providing and fixing new white vitreous china ware Orrisa type pan water closet squatting pan of approximate size 580 mm (Indian type W.C. pan) manufactured by M/s. Parryware/Hindware make with 110 mm bore P or S trap, 10/12 litre capacity P.V.C. low level flushing tank with manually controlled device conforming to relevant IS, manufactured by M/s. Parry Ware / M/s.Hindware including foot rests, 32mm diameter PVC flush pipe, 450mm length PVC connection pipe, cutting and making good the walls and floors wherever required etc., complete all as specified and directed by the Engineer-in-charge.	Nos	2.00		
29	Supplying and fixing new white vitreous chinaware floor mounted European type water closet with low level PVC flushing tank of 12 litres capacity of first quality, conforming to relevant IS, Manufactured by M/s Parryware/Hindware/equivalent make including white PVC seat cover, brass Chromium plated quarter turn angle cock, 450 mm long PVC Connecting pipe, 'P' or 'S' Trap with concealed brackets, flush pipe, health faucet with gun & flexible connection pipe including wall hook, drain outlet fittings, fixtures and hardware including making good the walls/floor wherever required etc., complete all as specified and directed by the Engineer in charge.	No	1.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
30	Supplying and fixing 600mm x 450mm or bigger size mirror of thickness 3mm manufactured by M/s. Saint Gobain/Modiguard with decorative wood PVC edge frame, including hooks, necessary hardware etc.,complete all as specified and directed by Engineer-in-charge.	Each	2.00		
31	Dismantling the existing old Wooden door shutters with frames of any size & thickness carefully without damaging the adjacent surfaces and handing over to BEML in good condition and Supplying and fixing PVC heavy duty door shutters with frames manufactured by M/s.Sintex or equivalent approved make with wall thickness not less than 2mm thick and shutter thickness not less than 30 mm (multi chamber hollow section) of approved shade & size conforming to relevant IS as per manufacturer's specification etc including necessary hardware viz., Stainless steel hinges, tower bolts, handles, hardware items etc.,complete all as specified and directed by Engineer in Charge.	Sqm	8.00		
32	Supplying and fixing white vitreous chinaware wash hand basin of 600mm diameter approximately or approved size manufactured by M/s. Parryware/Hindware/Cera/equivalent approved make conforming to relevant IS, with white vitreous china full height pedestal jointed neatly finished with cement mortar and pointed in cement slurry/jointing powder with colour pigment including all accessories such as brass chromium plated waste coupling, 32mm diameter PVC connection pipe of length 450mm, angle cock / stop cock, 32mm diameter PVC waste pipe, all necessary hardware items etc., complete all as specified and directed by the Engineer-in-charge.	No	2.00		
33	Supplying and fixing 15mm diameter brass chromium plated quarter turn Pillar cock of first quality approved brand manufactured by M/s.ESS ESS /Parryware/Johnson/Hindware or equivalent make including all accessories conforming to relevant IS etc., complete all as specified and directed by Engineer in Charge.	Each	2.00		
34	Supplying & fixing PVC SWR Gully trap 125/110mm diameter of M/s.Supreme/equivalent make including jointing with solvent cement etc., complete all as specified and directed by Engineer in Charge.	Each	4.00		
35	Supplying & fixing PVC Nahani trap 75/100mm diameter of M/s.Supreme/equivalent make including jointing with solvent cement etc., complete all as specified and directed by Engineer in Charge.	Each	10.00		
36	Supplying & fixing 100mm diameter brass chromium plated grating of first quality & reputed manufacturer conforming to relevant IS etc., complete all as specified and directed by Engineer in charge.	Each	10.00		
37	Supplying & fixing PVC Air vent cowl 110 mm diameter of M/s.Supreme/equivalent make including all bends, fittings & fixtures etc., complete all as specified and as directed by Engineer in Charge.	Each	2.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
38	Supplying and fixing Urinal Spreader of first quality approved brand conforming to relevant IS manufactured by M/s Parryware/Hindware/Equivalent make etc.,complete all as specified and directed by Engineer-in-Charge.	Nos	6.00		
39	Supplying and fixing vitreous chinaware white wall hung ceramic urinal basin of size minimum 345mmx320mmx560mm or bigger the size manufactured by M/s. Parryware/Hindware/Cera/equivalent approved make including push cock, flush pipe, waste coupling, waste pipe etc., of reputed manufacturer conforming to relevant IS etc complete set and fixing / bedding urinal against wall in cement mortar 1:2, securing urinal with bolts including brass screws, pointing around urinal back in cement mortar and with all drain outlet fittings.etc., complete all as specified and directed by the Engineer-in-charge.	Nos	6.00		
40	Removing the existing urinal partitions & Supplying and fixing white ceramic urinal partitions of size minimum 320mm x90mmx720mm or bigger size manufactured by M/s. Parryware / Hindware/Cera/ M/s Johnson approved brand conforming to relevant IS etc complete set & fixing against wall/floor in cement mortar 1:2, pointing around urinal partition back in cement mortar with all fittings using necessary hardware etc., complete all as specified and directed by Engineer-in-Charge.	Nos	4.00		
41	Supplying and fixing 300mm diameter heavy duty, steel body exhaust fan manufactured by M/s.Bajaj/USHA/Equivalent brand conforming to relevant IS etc.,complete all as specified and directed by Engineer-in- charge.	Each	2.00		
42	Supplying & fixing PVC soap dish/tray of first quality reputed manufacturer including all fittings & fixtures etc., complete all as specified and directed by Engineer-in-Charge.	Nos	2.00		
43	Returning & Filling the available earth in plinth, trenches & foundations, the earth of non swelling type, free from organic materials, consolidating in layers of not more than 200mm including watering compaction, etc., complete all as specified and as directed by Engineer in Charge. Note:- Net consolidated volume shall be measured for payment purpose.	Cum	2.00		
44	Providing and applying 2 coats of brush bond - RFX & Nitobond BBX a two component water proofing chemical of M/s FOSROC make to the roof slab and toilet flooring as per Manufacturers instructions etc., complete all as specified and directed by Engineer in Charge	Sqm	30.00		
45	Dismantling the existing old mosaic floor/wall tiles including cement mortar bedding layer and disposal of unserviceable materials from the premises etc.,complete all as specified and directed by Engineer in Charge. Note: The rate quoted is deemed to include disposal of debris/unserviceable surplus materials outside the site premises to a distance not exceeding 5.0KM not objected by local civic authorities including lead ,lift etc,complete all as specified and directed by Engineer in Charge.	Sqm	80.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
46	Supplying, Fabricating, hoisting and erecting in position MS Structural steel for Staircase, handrails, steps, landings using MS Structural steel sections viz., rectangular tubes, channels, plates, angles, cleats, flats, including tools, consumables, wastages, wastages etc., fixing to correct line & level including cutting, welding, bending to required shape, cleaning the rust and scales, shims & packing pieces required for erection at all elevation heights & levels etc., complete all as specified and as directed by Engineer in charge. Note: The rate quoted is deemed to include for scaffolding, staging/ladder & providing safety nets wherever necessary and protective measures etc.	Kgs	500.00		
47	Supplying and fixing heavy duty brass chromium plated handles for doors of minimum size 200mm of first quality approved brand conforming to relevant IS etc., complete all as specified and directed by Engineer in Charge.	Nos	20.00		
	Total value of work excluding GST (Rs).				
	GST (Rs).				
	Total value of work inclusive of GST (Rs)				

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

Signature of the Contractor with seal