

BEML LIMITED, PALAKKAD COMPLEX					
Sub:-Construction of New Ladies Waiting & Dress Room at BEML Ltd, Palakkad Complex					
BOQ					
Sl. No	DESCRIPTION	UNIT	QUANTITY	Rate	AMOUNT
I) Civil Works					
1	Earth work in surface excavation not exceeding 15 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth within a lead of 1Km., and lift up to 1.5 m, disposed soil to be levelled and neatly dressed. For soft/loose soil complete all as specified and directed by Engineer-in-charge.	Sqm	80.00		
2	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) Footing and plinth beam, including getting out and disposal of excavated earth lead upto 250m and lift upto 1.5 m from periphery, as directed by Engineer-in-charge. Excavation in all kind of soil below NGL to 1.5m . The rate shall include the cost of bailing out of water in pits/trenches etc as directed by Engineer-in- charge., if any. No additional payment shall be made for dewatering from the pits.	Cum	98.00		
3	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) Footing and plinth beam, including getting out and disposal of excavated earth lead upto 250m and lift upto 1.5 m from periphery, or part thereof in depth beyond the first 1.5 m Excavation in all kind of soil below 1.5m to 3m .The rate shall include the cost of bailing out of water in pits/trenches etc., if any. No additional payment shall be made for dewatering from the pits, as directed by Engineer-in charge.	Cum	28.00		
4	Supply, Laying and compacting WMM laid in layers of thickness not more than 150 mm laid in 2 layers of 75mm each. Wet mix macadam (WMM) grading as per table 400-13 of MoRTH specifications for road and bridge works 2013 manufactured in WMM plant, material comprising of clean, crushed graded aggregate and granular material premixed with water & and rolling with Earth roller static weight and for compaction to a dense mass laid in layers and compacted to achieve the required thickness to make as a hard base for the foundation. 1 ton roller to rolled for compaction (If the roller is not accessible, proper ramming shall be ensured with earth rammer). Complete as directed by Engineer-in charge.	Sqm	70.25		
5	Providing & injecting Anti-termite treatment by a specialized approved agency as per IS specifications, using preferably 1% by weight of chlorpyrifos or approved chemical with a guarantee for ten years etc., complete (only plinth area shall be measured & paid for). Treating the bottom and sides of excavation, under plinth protection & top surface of filled earth at the rate of 5 litres per square metre of surface area Chemical to be bought in sealed containers. Chemicals with ISI mark shall only be used. The chemical shall be chlorpyrifos emulsifiable concentrates confirming to IS 8944. Complete as directed by Engineer-in charge.	Sqm	128.00		
6	Providing Rubble Stone Boulder pitching, laid dry, hand packed tightly, uncoursed 300mm thk, well bonded, bedded and solidly hearted, built in CM 1:6 with hard stone where ever required, including scaffolding, dressing of stones, packing interstices, levelling, joints, Slope, curing etc. complete as directed at all levels.	Cum	1.50		
7	Providing and laying PCC M-10 (1:4:8) Grade using 40/20mm down size aggregates below flooring in foundations, Footing base concrete, flooring foundations, Plinth beam sides, walls or retaining walls etc, including, base preparation, proper compaction, vibration, curing, tools and tackles, necessary dewatering, etc complete at all levels as directed by Engineer-in-charge.	Cum	8.40		
8	Providing & laying R.C.C. M-25 confirming to grades as specified (IS 456-2000) as per specifications using 20mm down size aggregates at any depth or heights excluding the cost of steel reinforcement. Cost also including preparing the base by hacking and making rough concrete surface wherever the concrete is done on the existing flooring. Providing and placing RMC concrete work in RCC (M-25) The rate shall including Flooring, Footings, Foundations beams, bases for Columns, plinth beams, and basement to the required shape, compaction, levelling, vibrating and curing, excluding form work and Steel reinforcement etc. complete. as directed by Engineer-in charge.	Cum	38.75		
9	Back filling with available earth free from boulders and rubbish in trenches, plinth beam, foundation under floor etc, wherever required in layers not exceedind 30cm depth and consolidating in each layer by rammering and watering after use 1 ton roller to rolled for compaction (If the roller is not accessible, proper ramming shall be ensured with earth rammer) etc,complete as per the direction of engineer incharge.	Cum	94.00		

10	Supplying and Fixing of Steel reinforcement R.C.C. work for TMT bars conforming to IS : 1786(Latest) and the yield strength of 0.2% proof stress shall not to be less than 500N/Sqmm (Fe500/550 D Grade of steel) Rates include for Straightening, cutting, bending, placing at any level, binding in position high yield strength steel reinforcements including cost of reinforcement and binding wire, labour and scaffolding at all levels and heights etc. complete all as per specifications & drawings. Note: a) The contractor shall arrange for testing of TMT bars for physical properties from an authorized agency as per the relevant IS code. The test reports shall be submitted for our records.	Kgs	3125.00		
11	Providing and constructing 230mm thick Flyash Brick work in cement mortar 1:6 using approved quality brick and average compressive strength including raking out joints, scaffolding, curing etc. complete as directed at all levels.	Cum	35.50		
12	Providing and constructing 115mm thick Flyash Brick work in cement mortar 1:6 using approved quality brick and average compressive strength including raking out joints, scaffolding, curing etc. complete as directed at all levels.	Cum	5.50		
13	Rendering/Plastering to internal wall and ceiling surfaces 15mm thick in Cement Mortar 1:4 on fair faces of brick or concrete surfaces including finishing the surfaces even & smooth, curing, tools & tackles 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.	Sqm	275.00		
14	Prepare surface & Sponge Plaster to External walls surface with 20mm thick in Cement Mortar 1:4 . on fair faces of brick or concrete surfaces including finishing the surfaces even & smooth, curing, tools & tackles 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.	Sqm	160.00		
15	Prepare surface and provide Plaster drip course/ groove in plastered surface or moulding to R.C.C. projections of 20mm thick cement mortar (1:3) including hacking, scaffolding, curing, making grooves, patties etc., complete.	Rm	10.00		
16	Providing and Laying Anti-skid Vitrified Floor Tiles (600 x 600 mm) for Waiting room, dressing and toilets of approved make, size and colour, laid over cement mortar 1:6 of average 25mm thick, over which cement slurry will be poured, including tile spacers of 2 to 5 mm & grouting with Balendura, washed with Diluted HCl complete all as per directed by the Engineer in charge.	Sqm	46.00		
17	Providing and Laying Vitrified Wall Tiles (600 x 600 mm) for Toilets of approved make, size and colour, laid over cement mortar 1:6 of average 25mm thick, over which cement slurry will be poured, including tile spacers of 2 to 5 mm & grouting with Balendura, washed with Diluted HCl complete all as per Architectural drawing and as directed by the Engineer in charge.	Sqm	30.00		
18	Providing and Laying Full body Vitrified Tiles Skirting (100 mm height) for all rooms of approved design, colour and shade on 12mm thick cement mortar bedding 1:3, including tile spacers of 2 to 5 mm & grouting with Bal Endura etc., complete for Cut to sizes. complete all as per directed by the Engineer in charge.	Rmt	47.00		
19	Providing Supply of Water Proof Flush door(BWP Plywood) 30mm thick for Toilets as per approved specification Frame - 100 X 45 MM Melamine wrapped LVL, Architrave - 55 X 10mm outside and 20 X 10mm inside Shutter - 35 Mm Thick, Flush Door with both side aproved 1mm Fero laminate finish on both side.(Solid particle board infill)With CNC Machine Cutting for The Necessary Hardware as per drawing and as directed by the Engineer -in-charge etc., complete. (Providing door accessories like, but hinges, tower bolt, mortice lock, handle, Door Stopper etc.,) (Hardware - Iron Mongeries)	Sqm	8.00		
20	Providing and fixing factory made uPVC white colour doors and windows with sliding doors and fly mesh cum fixed glaze where ever required as per drawing comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in Charge. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. The glass provided shall be of 6mm thick plain/pinheaded as directed by the engineer in charge.	Sqm	14.00		

21	Providing and fixing factory made UPVC Ventilators with provision for exhaust fan as per approved specifications and directions made to design and fixed in the masonry with screws as per standard procedure with Pinned Glass Shutters of 6mm thick including exhaust opening providing and fixing the fittings, etc., complete.	Sqm	3.75		
22	Providing and applying of One coats of white wash (Internal and External surface) to plastered and concrete surfaces including providing necessary scaffolding, surface preparation, mixing DDL binder, blue etc. complete as per IS: 712- Latest Edition. If additional coats are required to obtain uniform and smooth finish, the same shall be carried out at no extra cost.	Sqm	370.00		
23	Preparing & Painting of the Internal Surface and Ceiling with Emulsion paint (weatherproof, anti-fungal, UV resistant) of approved shade and make, applied in two or more coats to give even shade over a coat of alkali-resistant cement primer & full putty of first quality, including thorough cleaning of surface, removal of loose paint, algae, moss, repairing cracks with cement-based crack filler, scaffolding, curing, and all tools & plants, complete as directed by Engineer-in-charge.	Sqm	275.00		
24	Preparing & Painting of the External Surface of walls with Premium Acrylic exterior emulsion paint (weatherproof, anti-fungal, UV resistant) of approved shade and make, applied in two or more coats to give even shade over a coat of exterior-grade alkali-resistant cement primer, including thorough cleaning of surface, removal of loose paint, algae, moss, repairing cracks with cement-based crack filler, scaffolding, curing, and all tools & plants, complete as directed by Engineer-in-charge.	Sqm	165.00		
25	Supplying and erecting CENTERING for sides and soffits including supports and Shuttering in all floors with all cross bracings using marine plywoods or Equivalent mild steel sheets and supported by steel props and bracing etc., complete and as directed. Steel Form work for footings, Column up to basement and Column basement to Lintel level, plinth beams/ tie beams / platforms/ lintel/ sunshade/ loft/ fins/ sills, Slab etc., with steel/plywood shuttering as per specification. In all floors	Sqm	225.00		
26	Supplying and fixing heavy-duty precast reinforced M25 grade concrete manhole cover slab of size 24" x 24" (600mm x 600mm) with integrated GI/MS 40x40x6mm L-angle edging all around to ensure stability and long-term durability. The cover shall be laid over the chamber opening at finished level, ensuring proper compaction of the bedding, alignment, and pointing with cement mortar or non-shrink grout at joints to prevent seepage or displacement. The rate includes supply, manufacturing, transportation, lifting, placement, edge angles, concrete, labour, materials, and all incidentals, as directed by the Engineer-in-Charge.	Nos	4.00		
27	Supplying and fixing heavy-duty precast reinforced M25 grade concrete manhole cover slab of size 12" x 12" (600mm x 600mm) with integrated GI/MS 40x40x6mm L-angle edging all around to ensure stability and long-term durability. The cover shall be laid over the chamber opening at finished level, ensuring proper compaction of the bedding, alignment, and pointing with cement mortar or non-shrink grout at joints to prevent seepage or displacement. The rate includes supply, manufacturing, transportation, lifting, placement, edge angles, concrete, labour, materials, and all incidentals, as directed by the Engineer-in-Charge.	Nos	2.00		
28	Supply & install precast concrete Saucer drain of size 600x300x100 (LxWxD) mm (M25/M30 grade), for plinth protection. Including bedding in sand/cement mortar, jointing, cleaning and alignment as per directed by Engineer in charge.	Sqm	20.00		
II) PLUMBING WORKS					
29	PVC SOIL / WASTE /RAIN WATER PIPE: (110 MM DIA -6kg/cm2) Supplying and laying the PVC pipe conforming to IS 13592:92 including plain or door type bends, elbows, collar, shoes, offsets, clamps junctions, tees,MTA, FTA, PVC clamps wooden plug, screws, washers etc fixed/ secured firmly and including cutting & making good the floor/walls with cement mortar wherever necessary etc., complete all as specified and directed by Engineer-in-charge.	Rmt	36.00		
30	Supplying & fixing PVC Air vent cowl 110 mm dia including all bends, fittings & fixtures etc., complete all as specified and as directed by Engineer in charge.	Each	1.00		
31	Supply, fixing,testing and commissioning of 2 inch Ball valve for controlling the Raw water inlet line including flange and pipe fitting	Each	2.00		
32	PVC SOIL / WASTE PIPE: (63 or 75MM DIA 6kg/cm2) Supplying and laying the PVC pipe conforming to IS 13592:92 including plain or door type bends, elbows, collar, shoes, offsets, clamps junctions, tees,MTA, FTA, PVC clamps wooden plug, screws, washers etc fixed/ secured firmly and including cutting & making good the floor/walls with cement mortar wherever necessary etc., complete all as specified and directed by Engineer-in-charge.	Rmt	20.00		
33	PVC SOIL / WASTE PIPE: (50 MM DIA) -6kg/cm2 Supplying and laying the PVC pipe conforming to IS 13592:92 including plain or door type bends, elbows, collar, shoes, offsets, clamps junctions, tees,MTA, FTA, PVC clamps wooden plug, screws, washers etc fixed/ secured firmly and including cutting & making good the floor/walls with cement mortar wherever necessary etc., complete all as specified and directed by Engineer-in-charge.	Rmt	20.00		

34	Providing and laying unplasticised polyvinyl chloride (UPVC) pipes 40 mm size of class IV or as applicable conforming to IS 4985:2000/ IS 15328 : 2003/ IS 13592 : 1992 Type B/ BS 4514/ BS EN 1329, latest edition including all necessary fittings fittings such as elbows, collars, Tees, MTA, FTA, PVC clamps wooden plug, screws, washers etc fixed/ secured firmly and 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	30.00		
35	Providing and laying unplasticised polyvinyl chloride (UPVC) pipes 25 mm size of class IV or as applicable conforming to IS 4985:2000/ IS 15328 : 2003/ IS 13592 : 1992 Type B/ BS 4514/ BS EN 1329, latest edition including all necessary fittings fittings such as elbows, collars, Tees, MTA, FTA, PVC clamps wooden plug, screws, washers etc fixed/ secured firmly and 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	30.00		
36	Providing and laying CPVC pipes 25 mm size of class s SDR 11 & Plain CPVC SDR 11 fittings on walls/ceiling or laying in floors, latest edition including all necessary fittings fittings such as elbows, collars, Tees, MTA, FTA, CPVC clamps wooden plug, screws, washers etc fixed/ secured firmly and including cutting & making good the floor/walls with cement mortar wherever necessary etc., complete all as specified and directed by Engineer-in-charge.	Rmt	20.00		
37	Supplying and fixing new coloured vitreous chinaware floor mounted European type water closet of approximate size 600 mm with low level PVC flushing cistren of 10-12 litres capacity of first quality, including white PVC seat cover, brass Chromium plated stop cock , angle cock for cistern and health faucet , 450 mm long PVC Connecting pipe, 'P' or 'S' Trap with concealed brackets, flush pipe, health faucet with gun & flexible connection pipe, drain outlet fittings and necessary 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	4.00		
38	Providing and fixing of HAND WASH BASIN white or coloured (pastel colours) wash basins of size 550mm x 400mm without pedestal Including the following accessories: -15mm brass CP stop cock / angle cock -1 No, Pillar cock -1 no . -15mm CP connections from the above stop cock to pillar cock - 1 No. -32mm dia waste coupling, CP brass chain and rubber stopper. -30mm Dia. bottle trap with cleaning eye, extension piece and wall flange. -Providing and fixing brass CP 13mm half turn pillar cock. Rate to include supply , painting and fixing of necessary CI brackets with nuts and bolts and fixing the wash basin with all necessary connections in walls.	No	3.00		
39	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.	No	3.00		
40	Providing & fixing brass full way gate valve ISI marked & of Leader/GG make or approved equivalent as directed by Enginner In Charge.size 25mm dia	No	2.00		
41	NAHANI (FLOOR) TRAP Providing and fixing PVC floor trap of self cleansing design conforming to IS specs with 100mm inlet, 75mm outlet and 150mm CP hinged grating of 6mm thick with rim. Rate shall include making all necessary leak proof connections etc	Nos	6.00		
42	Supplying and fixing 15mm diameter brass chromium plated short body bibcock of first quality including all accessories conforming to relevant IS etc., complete as specified and directed by Engineer in charge.	No	4.00		
43	Supplying and fixing of 3 layer insulated PVC water storage tank with cover and suitable locking arrangement and necesarry holes for inlet and outlet and over flow pipes with necesarry fittings & connections like Brass float valve, ball valve,union, elbow , pipe, socket etc., 1000litres capacity. Confirming to BIS 12701-96 or latest modifications.	No	1.00		
III) ELECTRICAL WORK					
	POINT WIRING				
44	Wiring for light Point/fan Point/exhaust fan Point/call bell Point with 1.5 sq mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the Point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable as required.	Point	25.00		
	Cable and termination				
45	Supply, laying and termination of 4 core 4 SqMM copper armoured cable in wall or ground from PDB to proposed Building.	Metre	50.00		
	WIRING				
	Wiring for circuit/submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
46	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre	50.00		
47	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	80.00		
	SOCKETS				
	Supplying and fixing following modular switch/ socket with suitable modular plate & switch box including connections but excluding modular plate etc. as required.				

48	5/6 amps switch	Each	3.00		
49	15/16 amp switch	Each	4.00		
50	3 pin 5/6 amp socket outlet	Each	3.00		
51	6 pin 15/16 amp socket outlet	Each	4.00		
52	Supplying and fixing stepped type electronic fan regulator with suitable modular plate & switch box including connections but excluding modular plate etc. as required.	Each	4.00		
53	Supply and fixing of surface mounted 20 Watts Batten Type LED with all accessories.	Each	10.00		
54	Supply and fixing of 10 Watts LED Mirror light, similar to Philips QWZ 802 Or Equivalent.	Each	3.00		
55	Supply and fixing of Bulb holders for fixing the LED bulbs with all accessories	Each	7.00		
EXHAUST FAN					
56	Supply and fixing of Exhaust fan with 225- 250mm sweep with double bearing and dimetallic blade with fixing bracket .(Make: Havell's/ Bajaj/Crompton/Orient/Usha)	Each	4.00		
DISTRIBUTION BOARDS					
57	Supply, Installation, Testing and Commissioning of single phase 12 way MCBDB Double door type, IP 42 powder coated comprising of "C" curve MCB's for Proposed building, including installation in wall , concealing the incoming and outgoing cables and conduits etc. Incommer - 40A, 30mA DP RCBO - 1No Outgoings - 6 - 25A SP MCB - 10 Nos	Each	1.00		
EARTHING ARRANGEMENT					
58	80mm dia 3 mtr long chemical safe earth electrode buried in ground and filled with recommended chemical filling and fine earth with masonry work, SFRC heavy duty cover etc. as required as per the site condition and KSEB norms.	Each	1.00		
59	Installation, Testing and Commissioning of Exterior IP65 LED 40W street light. The cost shall inclusive of Brackets, Supports Terminal Blocks, Necessary civil works and other associated accessories as required as per the site conditions. It is responsibility of the vendor to provide the sample and get the approval from the Client before delivery.	Each	4.00		
				Total	
				18 % GST	
				Grand Total	