

**RENOVATION AND MODIFICATION OF
COUNCIL HALL AT INSTITUTE BLOCK,
JIPMER, PUDUCHERRY**

**Volume- IV
BILL OF QUANTITIES**

**Tender No: HLL/IDD/CHN/20-21/043
Dated: 7th May 2020**



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BILL OF QUANTITIES**TENDER NO: HLL/IDD/CHN/20-21/043 DATED 07.05.2020****NAME OF WORK: RENOVATION AND MODIFICATION OF COUNCIL HALL AT INSTITUTE BLOCK,
JIPMER, PUDUCHERRY.**

S. No	Description of works	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.					
1.1	In cement mortar	Cum	1.99			
2	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
2.1	For thickness of tiles above 25 mm and up to 40 mm	Sqm	82.75			
3	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :					
3.1	Of area 3 sq. metres and below	Each	4.00			
4	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge.					
4.1	With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	50.00			
5	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III): 4 graded stone aggregate 12.5mm nominal size)	Sqm	77.49			
6	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement					

	mortar 1:4 (1 cement: 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.					
6.1	Size of Tile 800x800 mm	Sqm	82.75			
7	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cum	6.38			
8	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	295.00			
9	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete. as per direction of Engineer in Charge.					
9.1	32 mm nominal outer dia Pipes	Metre	46.00			
10	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.					
10.1	Two coats	Sqm	277.94			
11	Cutting holes up to 30x30 cm in walls including making good the same:					
11.1	With common burnt clay F.P.S. (non modular) bricks	Each	7.00			

12	<p>Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>					
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12.1	Fully Perforated Gypsum Plaster Board of size 1200 x2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60.	Sqm	22.55			
13	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :					
	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)					
13.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	140.00			
14	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):					
14.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	Sqm	12.44			
15	Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon					

	sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.					
15.1	Upto 5mm depth and 5 mm width	Metre	57.00			
	E&M WORKS					
16	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 Type 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 etc. as required.					
16.1	Group C	Point	22.00			
17	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.					
17.1	2 x 2.5 sq.mm + 1x 2.5 sq.mm earth wire	Metre	600.00			
17.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	230.00			
17.3	4 x 10 sqmm + 2 x 6 sqmm earth wire	Metre	100.00			
17.4	4 x 16 sqmm + 2 x 6 sqmm earth wire	Metre	220.00			
18	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
18.1	5/6 A switch	Each	46.00			
18.2	15/16 A switch	Each	10.00			
18.3	3 pin 5/6 A socket outlet	Each	46.00			
18.4	6 pin 15/16 A socket outlet	Each	10.00			

18.5	Telephone socket outlet	Each	7.00			
19	Supplying and drawing 2 pair, 0.5 sq mm FRLS PVC insulated copper conductor, un armoured telephone cable in the existing surface/recessed steel/ PVC conduit as required.					
19.1	2 Pair	Mtrs	600.00			
20	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.					
20.1	1 run of cable	Metre	800.00			
21	Supplying and fixing of Medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
21.1	25 mm	Metre	650.00			
22	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	10.00			
23	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.					
23.1	1 or 2 Module (75 mmX75 mm)	Each	5.00			
23.2	3 Module (100 mmX75 mm)	Each	23.00			
23.3	6 Module (200 mmX75 mm)	Each	5.00			
24	Installation, testing and commissioning of pre-wired, fluorescent fitting /compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	38.00			

25	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
25.1	16 way, Double door	Each	1.00			
26	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/ Isolator)					
26.1	8 way (4 + 24), Double door	Each	1.00			
27	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
27.1	Single pole	Each	65.00			
27.2	Single pole with neutral	Each	8.00			
28	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
28.1	40 Amps	Each	1.00			
28.2	63 Amps	Each	1.00			
29	Supply and Installation of Anutone Subtex Nubby, square edge, Glassfibre core fully encapsulated ceiling tile of size 595x595x15mm having density 100-120Kgs/m3, weight 1.5-1.8kg/m2 which is suspended by using 0.3mm thick and 15mm wide pre coated metal T15 grid system.The T15 Grid system of 600x600mm module shall include wall angle (WA15W30) with unequal flanges of size 14&20mm wide, length 3000mm, 0.43mm thick fixed	Sqm	77.49			

along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Main T15 (MT15W36) having flange width 15mm, height 32mm and length 3600mm from the soffit with help of soffit cleat and wire rod with leveling spring clip at 1200mm c/c. Cross T15 (CT15W12) having flange width 15mm, height 32mm and length 1200mm is then interlocked into the pre-cut slots in the Main T15 at 600mm centers in the direction perpendicular to the Main T15. Finally Cross T15 (CT15W06) having flange width 15mm, height 32mm and length 600mm are then interlocked into the pre cut slots in the 1200mm Cross T15 at 1200mm centers and in direction parallel to the Main T15. Subtex Nubby Square edge of size 595x595x15mm thick shall be placed into the grid size of 600x600mm. Ensure arrow marks behind subtex panels are oriented in one direction to achieve uniform shade. Technical Parameters Core - Glassfibre, Fire - Class 1 & P, Acoustics - NRC 0.9, Climate (OC RH) - 40, 95, Termite resistance - Yes, Light reflectance - 85 % , Green (RC %) - 35, Hygiene (VoC, Clean room) - Low, Class 3 ,Strength, Load capacity (Kg) - Antisag/approved quality and design metal ceiling

30	<p>Supply & installation of Anutone Slats made of pinewood fiberboard, Melamine laminated finish, groove perforated slats L16-2 - backlined with black acoustical fleece, tongue-groove edge for a seamless look, of size 128x2440x16mm thick having base density 800Kg/m³, weight 12Kgs/m² installed by using GI strut system. The GI strut system includes GI Cross channel (CC25) having thickness 0.55mm, length 3600mm, knurled web 50mm, depth 25mm and equal flanges 15mm is fastened vertically/horizontally at every 600mm centers. Aluminium core cross channel (CC18) having thickness 0.5mm, length 2400mm, web 15mm & 27mm, depth 18mm and flanges of 7mm with suitable edge & centre brackets is then fixed perpendicular to the CC10 with the help of fasteners at every 400mm centers. Slats of size 128x2430x16mm in then fixed perpendicular to CC18 with suitable edge & centre brackets. Contractor to provide expansion joints of 3mm at every 5mtrs bothways. Panels shall be backlined with acoustical infill of Anutone Synth PF 5x25mm thick adhered to the wall using Stick 7 adhesive. Technical Parameters : Core Variants - Pinewood E1 Fibreboard, Fire - Class 1 & P, Acoustics - NRC upto 0.75, Climate (OC RH) - 50, 70, Light reflectance - 75% (beech haya), Green (RC %) - 25, Hygiene (VoC, Clean room) - Low, Class 1, Strength, Load capacity (Kg) - Ball-Impact/approved metal panel./approved quality and design metal paneling</p>	Sqm	94.14			
31	<p>Providing and fixing 100mm vertical blinds of approved colour made from 100% polyester yarn coated with fade resistant polymer to ensure complete opaquity with zero light transmittance having suitable coating on exterior, including all fixtures and fittings complete in all respect as per design and instructions of the Engineer-in-charge</p>	Sqm	27.00			
32	<p>Repair of old wooden chairs. The rate shall include providing and fixing of cushion with cover, removing and making good the damaged portions, polishing of chair to required coat, all as per direction of Engineer-in-charge.</p>	Each	34.00			

33	Supply of wooden armed office chair made of seasoned fine teak wood with french sprit polish. The chairs have 4 nos of legs square shape size of 40x40x300mm, mid back rest size 550x30x50mm with cushion, arm size 550x50x32mm, seating cushion size of 550x555x100mm with rails supporting, and include making and jointins with necessary adshive and metal/wood pins all respect as per design and instructions of the Engineer-in-charge.	Each	34.00			
34	Repair of old damaged wooden confrence table size of 7.80x2.25x0.75 mts. The rate shall include providing and fixing of 20-32mm thick plywood to required portions, removing of old lamanated sheet, providing and and fixing of laminated sheets of approved quality and design, fixing of teak wood lipping wherever required, making good the damaged portions, neatly scraping, applying polishing to required coat, all as per direction of Engineer-in-charge.	Job	1.00			
35	Making Core Cutting in walls / slabs / beams / retaining walls and any other R.C / Brick members to following dia & depth by using suitable machine with tolerance for any type of inserts, pipes etc. Rate shall include for all charge, preparation of surface, cutting of reinforcement, cleaning the surface, staging, scaffolding application with necessary tools and equipments wat(lr and power, removal of debris from the site.					
	150mm to 250mm dia to depth	Each	6.00			
36	Removing the old light fixtures / ceiling fans and kept in safe custody inside the campus wherever JIPMER instructed (with in JIPMER campus)	Each	38.00			
37	Supply of 600 X 600 mm recess mounted Square LED 36 W down light in die-cast aluminium housing including high efficiency diffuser provides soft glare free light, driver etc including all required mounting accessories complete.	Each	5.00			

38	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. Data socket (RJ-45)	Each	12.00			
39	Supply, Installation, Testing, Commissioning of LED strip 22W along with drivers and all accessories, etc all complete (Havells FLEXION LED STRIP 22 W or equivalent)	Metre	110.00			
40	Supply of 3W deep spot LED light including all required accessories complete. (Havells LHEEBCPFUN1W003 or equivalent)	Nos	20.00			
41	Supply, Installation, Testing, Commissioning of low noise 400mm sweep cabin fan, include (360) gyrosopic movement or adjustable wind direction, grill for protection, 3 speed control by regulator, fixing and supporting from real ceiling with GI long thread rods to required length & dia and screws/fichers and complete. (Havells swing gyro or equivalent)	Nos	16.00			
42	Supply of 25 W recessed LED simple lighting system offering continuous, uniform lines of light across ceilings, aluminium extruded recessed light with recess mounting clamps, etc all complete. Size of fixtures 1148x67x73mm. (HAVELLS DESTELLO50LR25WLED857SPM MAWH or equivalent)	Nos	18.00			
43	Supplying and fixing following size/modules, PVC box alongwith modular base & cover plate for modular switches in recess etc. as required.					
43.1	1 or 2 Module	Nos	12.00			
43.2	3 Module	Nos	5.00			
43.3	6 Module	Nos	10.00			

44	Supply, Installation, Testing, commissioning of wireless office call bell of approved make with digital one battery-operated transmitter.	Nos	1.00			
45	Supply, Installation, Testing, commissioning of 23.5" x 12" LED"OPEN" Sign with Programmable LED Message board with extra bright blue, green, red and Yellow Multi-Color LED open sign Includes unique, customizable message area perfect for "hours of operation" and "specials". Includes sign programming software for PC and USB thumb drive to save and upload your messages & Hang in your window or storefront with the included metal chain, etc all complete.	Nos	1.00			
46	Supply, Installation, Testing, commissioning of Digital corded landline phone with LCD display (Beetel M75N CLI Corded Phone/equivalent.)	Nos	1.00			
47	Proving and fixing of office table of size 1200 X 750 X 740 mm made up of 20 mm thick plain MDF board, clad with 0.6 mm thick post formed laminate and 0.6 mm thick Backing Laminate. Flat edge duly sealed with 2mm thick PVC Beading. The Modesty is 18mm thick pre laminate MDF board on both sides. Edge sealed with 2mm thick PVC beading. The door, partitions and shelves are made up of 18mm thick pre laminated MDF board. Edge sealed with 2mm thick PVC beading. Drawers shall be provided with double extension precision ball slide with 10 lever Cam lock and centre locking arrangement, finished with epoxy polyester powder coat of thickness of 50 microns. It has Black Color Metal Pedestal without Castors. The rate shall include all materials, hardware and labour etc. complete as per instruction of engineer-in charge.	Nos	1.00			

48	<p>Supply, installation, testing and commissioning of 2TR capacity 4-way flow VRV/VRF Chilled water Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter ,fan section with low noise fan /dynamically balanced blower, multi speed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cordless remote control etc., suitable for operation on single phase 230V±10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shutdown provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. The unit must include supply, installation, testing and commissioning including vacuumization and Nitrogen testing of suitable nominal sizes of hard drawn copper refrigerant piping for chiller cassette system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of suitable thickness for Suction and Liquid lines, all accessories as per specifications etc. as required (max 5 mtrs length) along with suitable valve and accessories. Along with this the system should include supply, installation, testing and commissioning of suitable type drain pipe upto floor level insulated with suitable size XPLE Class-O tubular insulation/with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of suitable thickness etc all complete</p>	Job	4.00			
AV SYSTEMS						
49	<p>Supply Installation, testing and commissioning of ultra short throw LCD projector 3200 ANSI lumens, WXGA (1200X800 PIXELS) 10000 hour lamp life and complete. EPSON EB-675Wi/Equal</p>	Each	1.00			

50	Supply Installation, and commissioning of ceramic white board of size 8'x4' with marker along with stand. Make: Alkosign/Equal	Each	1.00			
51	Supply Installation of 15m HDMI Male to Male Cable kit.	Each	1.00			
52	Supply Installation of 15m VGA Cable kit.	Each	1.00			
53	Supply Installation, testing and commissioning of wireless gooseneck microphone (4 Nos for each set) Make: Studio Master or Equivalent	Set	3.00			
54	Supply Installation, testing and commissioning of wireless hand microphone. Make: AKG/Equal	Each	2.00			
55	Supply Installation, testing and commissioning of 6W ceiling speakers. Make: JBL/Bosch	Each	12.00			
56	Supply Installation, testing and commissioning of 240W amplifier. Make: Bosch PLE-1ME240IN/equivalent.	Each	1.00			
57	Supply Installation, testing and commissioning of Yamaha MG16XU/equivalent.	Each	1.00			
58	Supply Installation, testing and commissioning of 17U rack of approved make.	Each	1.00			
59	Supply, Installation, Testing & Commissioning of 65 inch SONY make 4kLED TV(KD-65X8000-G)/equivalent.	Each	1.00			
	FIRE EXTINGUISHER					
60	Supply, installation, testing and commissioning of following types of extinguisher with provision of wall bracket (fixed with anchor fastner) or floor mounted.					

60.1	ISI marked (IS:15683) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kg. Flat base including valve, discharge hose of not less than 10 mm dia, 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 filled to a filling rate of not more than 0.667 and wall suspension bracket	Nos	1.00			
60.2	ABC (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683 4 Kg with pressure gauge squeeze grip type.	Nos	1.00			
Total Amount						
Add GST						
Grand Total Amount incl. of GST in Figures						
Grand total amount in words: Rupees						

END OF VOLUME - IV