

**INTERIOR\_FURNISHING, ELECTRICAL &  
HVAC WORKS OF 9TH & 10TH FLOOR, AT  
NBCC TOWER, SAHKAR MARG, JAIPUR**

**FOR  
THE ORIENTAL INSURANCE CO. LTD.**



**PART-B  
(FINANCIAL BID)**

**SPECIFICATIONS DOCUMENTS :**

**Architects**

**M/s SPACE ACE**

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**Dated: 04/12/2017**



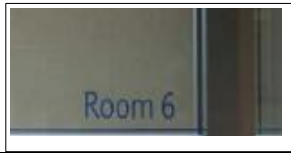



**BOQ FOR THE PROPOSED INTERIOR-FINISHING, FURNITURE, ELECTRICAL & HVAC WORKS OF 9th & 10th FLOOR, OIC REGIONAL OFFICE AT NBCC TOWER, JAIPUR.**


LO	INTERIOR WORKS					
1	DISMANTLING					
S.No	Particulars	Quantity	Unit	Rate	Amount	Reference Image
1.1	Dismantling/Demolishing removing brick work,wall / fixtures etc. to accommodate the proposed new layout and disposal of unserviceable material to a place permitted by the municipal authorities including making good any damages complete. No unserviceable dismantled material will be allowed to be accumulated at site. Decision of the architect/ employer as to what constitute unserviceable material will be final and binding. The amount should include cost for carrying out any other unforeseen items required for the proper execution of the work. All complete as per approval and instructions of the Architect/ employer.	1	L.S.			
<b>2 FINISHING WORK</b>						
2.1	Providing p.o.p on walls of requisite thickness wherever plastic emulsion paint has to be done to make wall smooth, in parts wherever conduiting is done to match with existing pop and surface and line . The measurement would be done in 6",9",1'-0" widths x running length and paid in sq.m. ) .	935	Sq.m.			
2.2	Providing and applying three coats of pre-approved Plastic acrylic emulsion paint to walls, partitions etc. including surface preparation with two coats of putty, primer and sanding all complete. With the necessary drying periods for each coat. The final finish should be of a uniform and neat finish to the satisfaction of the Architect. Cost to be include for all height and surfaces.(Low VOC contain paint) Make: ICI DULUX ,Asian Paints	1450.00	Sq.m.			
2.3	Wall painting with Texture paint interior grade of Unitle make or approved equivalent of approved shade and quality (2 or more coats) on new work to give an even shade including preparation of surface complete as directed. Make: Spectrum/Unitle/ pidilite/	50.00	Sq.m.			
<b>3 PANELLING WORKS</b>						
3.1	Panelling on columns/walls with red marandi frame work of 11/2" x11/ 2"hardwood members @ 1'-6" c/c , painted with fire retardant paint viper fireretar- FR-881 paint, with 6 mm thk. commercial plywood and 1mm thk. laminate on exposed faces , with steem beech moulding 1"x ½" or less on corner edges and juntion with wall or any other junctions , including making of grooves and boxing , all mouldings to be melamine polished.	264.49	Sq.m.			
<b>3.3 GLASS PARTITION</b>						
	Providing and Fixing Full height straight glass partitions using 12mm thk toughened glass inclusive of the glass surface as indicated on the drawings and as per the instructions of the Architect. Glass to be fixed with SS "U" CHANNEL, concealed properly with requisite sealant within partition / MDF frame as per detail. All exposed edges of the glass shall be machine polished.All glass-to-glass joints to be sealed with pre-approved silicon sealants/ 3M tape, as required (GLASS MAKE Modiguard/Asahi float/Saint-Gobain/Asahi India)					
	For all Glazed partitions the solid partition above and below the glazed portions, upto a max. dimension of 300 mm, shall be measured as part of the glazed partitions; if more than 300 mm, then the relevant portion, more than 300mm, shall be part of the solid partition. For solid vertical portions of the glazed partitions which would be framework and gypsum skin (s), all portions less than 600mm shall be measured as part of the glazed partitions and if more than 600mm shall be measured as part of solid partitions.					
3.3.1	Height of glazed partition - 2400mm	28.83	Sq.m.			
<b>3.4 FULL HEIGHT GLASS door (12mm Thk ToughEened Glass door)</b>						
	Providing and fixing Single/Double leaf glass door made of 12 mm thick toughened glass fixed on stainless steel fittings of required section of chrome finished,100mm high Stainless steel plate at top and bottom both side of the glass shutter as per drawing, including floor spring, patch fittings, SS top pivot, door handle, lock of approved make (sample approved by the Architect/ Client) and all necessary hardwares and fixing arrangement complete as shown in drawing and directed by the Architect. make of Fitting as approved: Kich/Ozone/Neki/Dorma. & Glass Make : Modiguard/Asahi float/ Saint-Gobain/Asahi India					
	with cylindrical locks and kitch handles both sides 30mm dia and 600mm long in buffed SS 304 finish.					
3.4.1	Item same as above but overall size of Glass door is 900x2100mm.	6	each			
<b>3.5 Frosted Film</b>						

3.5.1	Providing and fixing frosted film on both sides of Glass Partition/Glass door with MCS warranty of 5 years as per the manufacturer specification. (Finished works to be measured as smt). To include cost of printing designing, and sample approvals.					
	3M forsted film on glass as per design Ref. Name & No.: Dusted Crystel white 7725 - 314 Dot pattern or as per architect approval applied on glass with full/half frosting (As per Design)	18.39	Sq.m.			
3.5.2	Providing & fixing 5mm thick lacqured glass of saint gobain ceiling over 8mm ply. ply to be installed on G.I ceiling framing hanging from the true slab level. which includes providing and fixing GI perimeter channels of size 0.55mm thick having one flange of 20mm and another flange of 30mm and a web of 27mm along with perimeter of ceiling, screw fixed to brick wall/partition with the help of nylon sleeves and screws, at 610mm centers. The suspending GI intermediate channels of size 45mm 0.9mm thick with two flanges of 15mm each from the soffit at 1220mm centers with ceiling angle of width 25mm x10mm x 0.55mm thick fixed to soffit with GI cleat and steel expansion fasteners. Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 457mm centers. All sections, channels, etc to be in Gypsteel make as specified by manufacturer as per shown in drawing and directed by the Architect (Contractor to include the cost of members & all required accessories for installation compelet in his quoted rate)	122	Sq.m.			
4	<b>FALSE CEILING</b>					
Note:	Quoted Rates are for all heights , scaffolding, depths, levels, leads and lifts and for all design and pattern shown in drawings					
	Contractor to include the cost of members & all required accessories for installation compelet finished ceiling in his quoted rate					
	Actual finished area to be measured and paid for					
	Vendor Shall submit & get approved all type of board/Tiles /plank sample by Architect before execution.					
4.1	<b>ARMSTRONG CEILING</b>					
4.1.1	<b>Modular Grid Ceiling</b>					
	Providing and Fixing of false ceilings at all heights of 600mm x 600mm Grid ceiling tiles with Microlook Edge laid on prelude XL exposed <b>silhouette grid systems</b> with 15mm wide T- section flanges colour white. The framework comprise of main runner spaced at 1200mm centers securely fixed to the structural soffit by approved hangers at 1200mm maximum centers. Hangers (GI wire of 4.0mm dia) to be fixed by approved roof plug/ fastener, level adjusters and screws etc. The last hanger at the end of each main runner should not be greater than 450mm from the adjacent wall. Flush fitting 1200mm long cross tees (with double stitching) to be interlocked between main runners at 600mm centers to form 1200 x 600 modules. Cut cross tees longer than 600mm to be supported independently.					
	600mm x 600mm modules to be formed by fitting 600mm long flush fitting coss tees centrally between the 1200mm cross tees. Perimeter trim to be Armstrong wall angle secured to walls at 450mm maximum centners. The quoted rate shall be inclusive for making opening for light fixtures, diffusers & AC fittings. The quoted rate shall be inclusive of suspenders at all heiight & extra member required for all openings. (Basic rate of only ceiling tile Rs 500/- per Sq.m.)(Contractor to include the cost of members & all other accessories mentioned above in his quoted rate)					
	<b>ARMSTRONG silhouette grid system</b>	175	Sq.m.			
4.2	<b>GYPSON BOARD CEILING</b>					
4.2.1	Providing and fixing suspended false ceiling in microlook , which includes providing and fixing GI perimeter channels of size 0.55mm thick having one flange of 20mm and another flange of 30mm and a web of 27mm along with perimeter of ceiling, screw fixed to brick wall/partition with the help of nylon sleeves and screws, at 610mm centers. The suspending GI intermediate channels of size 45mm 0.9mm thick with two flanges of 15mm each from the soffit at 1220mm centers with ceiling angle of width 25mm x10mm x 0.55mm thick fixed to soffit with GI cleat and steel expansion fasteners. Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 457mm centers. All sections, channels, etc to be in Gypsteel make as specified by manufacturer as per shown in drawing and directed by the Architect.	215.5	Sq.m.			

	12.5mm tapered edge Gypboard (conforming to IS-2095 - 1982) is then screw fixed to ceiling section with 25mm drywall screws at 230mm centers. Screw fixing is done mechanically either Finally the boards are to be jointed and finished so as to have a flush look which includes filling as finishing the tapered and square edges of the boards with jointing compound, paper tape and two coats of primer suitable for Gypboard and three or more coats of Acrylic emulsion paint (as per recommended practices of India Gypsum or equivalent) etc. complete including opening to be made for AC grills, light fittings, trap door etc. (Plan area to be measured and paid for) (cost to include paint also) (all material including chanel etc. Make: Lafarge (Boral)Gypsum/ Saint-Gobain/ India Gypsum/USG)				
<b>4.3</b>	<b>Trap door for Gypsum False ceiling</b>				
<b>4.3.1</b>	Providing and fixing trap door in false ceiling, made of 12 mm thick prelaminated partical board resting/ fixed including all hardware, hard wood lipping etc. complete as per drawing and drawing.				
	Make: Knuff Size: 600x600	<b>8</b>	<b>no.</b>		
<b>4.4</b>	<b>Veneer Finished wooden ceiling</b>				
<b>4.4.1</b>	Veneer Finished Wooden slats False Ceiling (as per shown in drawing, in CRM, RM & Conference room etc.)				
	4mm thick veneer finish over 12mm thick commercial ply with hard wood frame of required section fixed to wall & ceiling with necessary nails & screws as required and as shown.				
	Venner make : duro group B				
	Commercial ply make : Century/Green/Kitply/Garnet/merino/ Duro				
	P/F Framework using 50 mm thick hardwood(Kail) members The fixing of members to be done with screws and the joints to be of the type to achieve rigidity in the frame.This will have 12mm ply over the frame polished black on external face. Slats to be veneer in the selected color with all requisite steps. Cost to be inclusive of sanding, surface preparation and polishing the same to approved shade and color, inclusive of 3 coats of melamine OR top coat of PU finish, as per instructions & approvals of architect.				
	Including all necessary nails, glues, teak wood lipping, melamine polishing, wood preservative paint, fire retardant paint, brushed steel hinges for trap door shutter including making opening for lights, AC grills etc. complete as per design and drawing.				
	Size of slat = 50mm(W) X 100mm (D) Spaces between wooden slats to be 150 mm c/c of 50 mm slats.	<b>86.98</b>	<b>Sq.m.</b>		
<b>4.4.1.2</b>	<b>Providing &amp; Fixing of Wooden logs in Ceiling</b>	<b>65.78</b>	<b>Sq.m.</b>		
	Providing & fixing Wood Beams/ Logs of ivory coast wood with long grains of specified size: 200x100 in ceiling with all necessary nails & screws accessories and support. Wood should be fully treated . Quote rate shall Including all necessary nails, adhesives, melamine polishing, wood preservative & fire retardant paint, complete as per design and drawing with include all taxes & duties. (Contractor to include the cost of members & all required accessories for installation compelet in his quoted rate)				
	Dimensions : Width 8" × Height 4" × Length 21'				
	Color: Walnut				
<b>5</b>	<b>ROLLER BLINDS</b>				
<b>5.1</b>	<b>Roller Blinds- Normal</b>				
	Providing & fixing roller blinds comprising of polymer coated fibre fabric with minimum openness factor of 3% as per AS standards. The fabric shall be fire retardant and have high heat reflection ratios. The roller mechanism shall be a moulded unit made from engineering grade plastic polymer with steel spring support. The fabric shall be finished on the sides with edge tape duly welded for waviness control. The fabric shall be attached to the roller tube with high quality self adhesive tape. Average width of blinds shall be 2000mm and fall of 3000mm with manual operation.				
	<b>Headrail:</b> shall be .812" high x 2" deep extruded aluminum headrail with a wall thickness of 0.045" and painted to coordinate with fabric color.				
	<b>Cord lock:</b> shall be a snap-in design of injection-molded thermoplastic incorporating a metal, free-floating, serrated cord-locking roller.				
	Lift cord: shall be 1.2mm polyester and concealed for a clean appearance. A snap tassel and joiner ball connect to a single Danskord for raising and lowering the shade. Cord, tassel and joiner ball are color coordinated with fabric.				
	Installation: Bracket shall be low profile, hidden snap-in design made of 0.025" zinc-plated spring steel.				
	Bottomrail: shall be 0.375" high x 2" deep extruded aluminum with a wall thickness of 0.045" and painted to coordinate with fabric color.				
	Fabrication Shades shall be fabricated according to specifications and accurate to tolerance established by SWF engineering standards				





5.1.1	Basic Cost: Rs 2500 per sm + taxes make: Hunter douglas/ Roselle/winfab .	209.75	Sq.m.			
5.1.2	item same as above but for black out in conference room	46.46	Sq.m.			
<b>TOTAL OF INTERIOR-FURNISHING WORKS</b>						
<b>6 FLOORING WORK</b>						
S.No	Particulars	Quantity	Unit	Rate	Amount	Refrence Image
Note:	(Quoted Rates are for all heights, depths, levels, leads and lifts and for all design and pattern shown in drawings)					
	Stones shall be procured in slabs of varying sizes quoted rates also to include cutting of stones as per required sizes from slab. <b>Note: Actual finished area to be measured and paid for.</b>					
	Note :- Vendor Shall submit & get approved all type of stone/Tiles sample by Architect before execution.					
	Make Vitrified Tiles: Granito/ Kajaria/ Restile/ Somany/Qtone/ Nitco					
	Make Ceramic Tiles: Kajaria/Somany/Bell/Nitco/Qtone					
6.1	Providing and laying polished granite stone in choice shade laid in floors and counter tops over 20mm (average) thick base of cement mortar 1:4 (1 cement :4 coarse sand) followed by laying and fixing with highly polymer single component adhesive of LATICRETE / BAL ENDURA or equivalent with minimum 6 mm thickness and jointed with white cement slurry mixed with matching pigment, including rubbing and polishing and curing etc. complete at all levels. (Sample of stones shall be got approved by Architect. Basic cost @Rs. 250/- per sq.ft.)					
6.1.1	item same as above in flooring, Staircase steps, landing etc. the cost shall be included with necessary groove, joints chamfer, all complete as drawings to be provided by the architect/as per instnction of site in charge.	25.00	Sq.m.			
6.1.2	item same as above in skirting, risers of steps, Ledge of pantry counter etc., on 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) with necessary groove, joints chamfer, all complete as drawings to be provided by the architect/as per instnction of site in charge.	5.00	Sq.m.			
6.2	Providing and laying 10-12mm thick Dual charged Vitrified tiles of Kajaria/ Marbonite/ Somany/ Nitco make or approved equivalent and of approved shade of size as per drawing in floors over 20mm (average) base of cement mortar 1:4 (1 cement :4 coarse sand) required thickness to match finished floor level mentioned and to match the neighboring floor finish and jointed with epoxy grout of approved shade from Bal Endure or equivalent brand all complete as directed complete. Rate to include forming pattern in the flooring like border, skirting, cut tiles, Protecting of the tile till hand over date by POP., etc all complete as per detailed architectural drawing.					
	same as above With Vitrified Tiles of <b>Base rate of Vitrified tiles Rs. 100/- per Sft leaving taxes and freight and loading un loading charges )</b>	545.00	Sq.m.			
6.3	Providing and fixing William Tape for protecting floor & glass from dust during construction .Item includes removing the tape after completion of work and cleaning the area.	545.00	Sq.m.			
6.4	<b>Australian /swiss White stone Flooring and Skirting :</b> With 18-20mm thick mirror polish machine cut Vietnam white Stone flooring with skirting over 20mm (average) thick base of cement mortar 1:4 (1 cement :4 coarse sand) followed by laying and fixing with highly polymer single component adhesive of LATICRETE / BAL ENDURA or equivalent with minimum 6 mm thickness and jointed with white cement slurry mixed with matching pigment, including rubbing and polishing and curing etc. complete at all levels. (Sample of stones shall be got approved by Engineer-in-Charge).	45.00	Sq.m.			
	(Basic rate of stone Rs.700/- per Sqft leaving taxes and freight and loading un-loading charges) for President Floor					
<b>TOTAL OF FLOORING WORK CARRIED OVER TO SUMMARY</b>						
<b>7 MISCELLANEOUS ITEMS</b>						
7.1	Provoding and Fixing Logo for OIC WITH TEXT AND LOGO for main reception area made with S.S and Back Led lighting (with necessary connections) of approved color as shown in drawing or as directed by the architect.	1	each			
7.2	Provoding and Fixing Signage in area's such Lift Lobby for Floor Indication etc.					
7.2.1	Toilet signages (Gents)- on door : Acrylic ducopainted signage with text / graphics in 3M grade vinyl Size : 200 mm wide x 200 mm tall * sign mounted on door	2	each			




7.2.2	Toilet signages (Ladies)- on door : Acrylic ducopainted signage with text / graphics in 3M grade vinyl Size : 200 mm wide x 200 mm tall * sign mounted on door	2	each			
7.2.3	Floor Level Indicator - wall mounted : (LIFT LOBBY) Acrylic ducopainted signage with text / graphics in 3M grade vinyl Size : 317 mm wide x 317 mm tall * sign mounted on wall	2	each			
7.2.4	Cabin Naming (In vinyl on glass) : Ht. 30mm, Font : Expert sans regular, Length Max. 450 mm Ref. : Colour 100 % cyan. 4 colour process C100 MO to KO. RGB : R0 G164 B232	15	each			
7.2.5	Desk Numbering	55	each			
7.2.6	Supply & Installtion of Pull - Push Signages : Brush finish stainless steel etched signs Size : 2.5"(H) x 2.5"(W) set includes 1 pull & 1 push	20	each			
<b>TOTAL OF MISCELLANEOUS WORK CARRIED OVER TO SUMMARY</b>						
<b>8 BRICK WORK</b>						
8.1	115 mm ( 4 1/2 "" ) thick brick masonry in first class bricks/brick titles in superstructure at all levels above plinth in cement mortar 1:4 (1 cement: 4 coarse sand) with 1 No. 6mm dia M.S. bar after every fourth course complete including the cost of steel bars.including plaster 1:4 ) on both sides of wall, including casting lintels for doors.	35.14	sq.m.			
8.2	<b>P.C.C</b>					
	Providing and laying plain cement concrete 1:2:4 mix (1 cement :2 coarse sand :4 hard stone aggregate 20 mm nominal size) under floors. For raceways, electrical conduits in floors etc. over existing R.C.C Slab, necessary shuttering, curing, compacting, etc Complete & all to be included in cost & quoted rate shall for all levels of floor & height.	15.41	cu.m.			
	For raceways, electrical conduits in floors etc.					
<b>TOTAL OF CIVIL WORKS CARRIED OVER TO SUMMARY</b>						
<b>9 COMPACTOR</b>						
9.40	<b>KD OPTIMIZER 15</b>					
9.40.1	SD2-Single Static Drive Cover Unit 2 Bay	2	no.			
9.40.2	LD2-Single Last Drive Unit 2 Bay	2	no.			
9.40.3	TD2-Twin Mobile Drive Unit 2 Bay (915 mm W x 381mm D x 1980mm H)	6	no.			
	<b>CHANNELS</b>					
9.40.4	9'0"	2	no.			
9.40.4	6'0"	2	no.			
	Construction: Rigid Knock Down construction made out of 0.8 thk. CRCA Steel. Finish: The bodies including shelves are given antirust surface treatment & are powder coated with epoxy polyester powder. It involves an 8 step treatment consisting of Hot water rinse, Knock of degreasing, degreasing, cold water rinse, phosphating, cold water rinse, and passivation & dry off oven treatment. Final finish consists of epoxy polyester powder coating of approved color & shade with a Dry Film Thickness of minimum 40 microns. Shelf: It is made of 0.8 thk CRCA steel Shelves are mounted on support brackets & shelf level can be adjusted at approx. 25.4 pitches. There are 4 adjustable shelves per body giving 5 loading levels, if no Cradle pair is provided. Finish: The undercarriage, after pre-treatment, is coated with final finish consisting of epoxy polyester powder coat of approved color & shade with a Dry Film Thickness of minimum 40 microns. Centralized Locking Drive Type PU Drive wheel and 'Sprocket-Chain-Tensioner' arrangement mounted rigidly onto body sidemovement of units is achieved mechanically through a Drive wheel and 'Sprocket-Chain' arrangement mounted rigidly onto body side.					



9.41	<b>KD OPTIMIZER 15</b>					
9.41.1	SS1-Single Static 1 Bay Push Pull Type	1	no.			
9.41.2	SL1-Single Last 1 Bay Push Pull Type	1	no.			
9.41.3	TM1-Twin Mobile 1Bay Push Pull Type (915 mm W x 381mm D x 1980mm H)	2	no.			
	CHANNELS					
9.41.4	6'0"	2	no.			
	<p>Construction: Rigid Knock Down construction made out of 0.8 thk. CRCA Steel.</p> <p>Finish: The bodies including shelves are given antirust surface treatment &amp; are powder coated with epoxy polyester powder. It involves an 8 step treatment consisting of Hot water rinse, Knock of degreasing, degreasing, cold water rinse, phosphating, cold water rinse, and passivation &amp; dry off oven treatment. Final finish consists of epoxy polyester powder coating of approved color &amp; shade with a Dry Film Thickness of minimum 40 microns.</p> <p>Shelf: It is made of 0.8 thk CRCA steel Shelves are mounted on support brackets &amp; shelf level can be adjusted at approx. 25.4 pitches. There are 4 adjustable shelves per body giving 5 loading levels, if no Cradle pair is provided.</p> <p>Finish: The undercarriage, after pre-treatment, is coated with final finish consisting of epoxy polyester powder coat of approved color &amp; shade with a Dry Film Thickness of minimum 40 microns.</p> <p>Push-Pull Movement of units achieved by pushing or pulling Chrome plated rigidly fixed at suitable height on body side. Each movable undercarriage has 4 nos. of antifriction ball bearings for rolling onto channel</p>					
	<b>TOTAL OF COMPACTORS WORKS CARRIED OVER TO SUMMARY</b>					
<b>10</b>	<b>FURNITURE WORKS</b>					
<b>10.1</b>	<b>PARTITION WORKS</b>					
<b>10.1.1</b>	<b>PARTLY GLAZED</b>					
a)	<p>P/F full height partitions with red marandi frame work of 2" x 2" hardwood members @ 1'-6" c/c, painted with fire retardant cum anti termite paint viper star FR 881 , with 12 mm thk. Commercial plywood and 1 mm thk. Laminate on both faces of the partitions. Fixed firmly in position with 2" to 4" skirting laminated, providing of grooves (max size of laminate to be taken for pasting and not waste pasted with maximum grooves) as per architects instructions / drawings. With doors and glazing panel with etched glass as per approved design (10mm toughfened glass only) glass at 3'-6" h to 7'-3" high with steam beech wood frame work ( 3"x 1" ex ) and beading melamine polished( 3" x 1" ex ) as per app shade, doors with steam beech wood bottom stile to be 8" x 1 1/2" and side and top stile to be 5" x 1 1/2" and rest 10mm toughened glass. chowkat (3" x 1 1/2" ex) with efficient gadgets door closer D.C. 2000/Dorma/ozone and all necessary hettich/haffle hardwares/hinges With laminated band with grooves at ceiling /partition interface both sides.(All laminates to be Merinolam/green lam/Formica/century make)</p>	128	sq.m.			
(b)	<p>P/F <b>Low height partitions</b> as per design upto maximum upto 4'-6" high with red marandi frame work of 2" x 2" members @ 1'-6" c/c , painted with fire retardant viper fireretar- FR-881 viper paint, with 12 mm thk. commercial plywood. 1mm laminates on both faces of the partitions . Fixed firmly in position with 2" to 4" skirting laminated, providing of grooves (max size of laminate to be taken for pasting and not waste pasted with maximum grooves) as per architects instructions / drawings, with top of partition where glass is not there in european/german steemed beech section 21/2 "x1" Ex melamine polished as per design and fixing plain etched 12mm glass as partition fixed firmly in position with edge polishing in slant /curved or straight line as per design fixed with european/german steemed beech section 21/2" to 3"x1" melamine polished as per design with 3/4 "X3/4"ex steam beech moulding at bottom bands. The measurement to be taken in maximum rectangle for payment to the contractor . . The glass height may range from 1'-6" to 3'-0" and can be on top or in bottom of partition as per architect's instructions.</p>	124.09	sq.m.			
<b>10.2</b>	<b>STORAGE WORKS</b>					

a)	P/F full height 1'-6" deep (area calculated as length x breadth ) storage in cabins as / dwg.made up of 19mm commercial blockboard shutters,sides & shelves with melamine polished european/german steamed beech 3/4"x 1/2" mouldings on margin and 1 1/2"x 1"European/German Steamed Beech. moulding on all edges sides and 3/4" X 3/4"Ex Steam beech moulding melamine polished at 2" high skirting level . 6mm plywood back,with 1mm thick laminate Merinolam/greenlam/Formica normal on top and other areas on all visible surfaces as per design with enamel/plastic base on inner surfaces, including efficient gadgets/godrej locks. stainless steel handles , and magnetic ball catchers with necessary hettich/haffle hardware,hinges, godrej locks and SS handles as per architects instructions including shelves as per design .	15.29	sq.m.			
b)	P/F low height 1'-6" deep(area calculated as length x breadth ) storage in cabins as / dwg.made up of 19mm commercial block board shutters,sides & shelves with melamine polished european/german steamed beech 3/4"x 1/2" mouldings on margin and 1 1/2"x 1"European/German Steamed Beech. moulding on all edges sides and 3/4" X 3/4"Ex Steam beech moulding melamine polish at 2" high skirting level . 6mm plywood back,with 1mm thick laminate on all visible surfaces leaving storage table top. <b>The storage top and visible sides finished with 12mm thick solid arcylic top (Corian Top) (basic rate of Rs. 1100/- per sq.ft. including taxes and transportation)</b> in approved color and counter visible sides in white color as per drg/detail with enamel/plastic base on inner surfaces, mounted on powdercoated hinges, including efficient gadgets locks. C 4" stainless steel handles , and magnetic ball catchers with necessary hettich/haffle hardware,hinges, godrej locks and SS handles as per architects instructions including shelves as per design .	117.51	sq.m.			
<b>10.3 TABLES</b>						
10.3.1	P/F Tables of 2'-6" height made 3/4" th comm board for tables 5'-0" and less long and 19mm comm block board for tables above than 5'-0" length , with modesty panel , all visible areas with 1mm laminate on all external & internal faces, <b>only top and visible sides finished with 12mm thick solid arcylic top (Corian Top) (basic rate of Rs. 1100/- per sq.ft. including taxes and transportation) in approved white color and table visible sides in white color</b> as per drg/detail with pencil drawer, file drawer,3",6"drawer etc , 3"x 2" steam beech wood leg rest,european/german steamed beech 3/4"x 1/2" mouldings on margin and 1 1/2"x 1 1/2"European/German Steamed Beech moulding on all edges sides and 3/4" X 3/4"Ex Steam beech moulding melamine polish at 2" high skirting level with all necessary hettich/haffle channels, Keyboard and channel ,handles ,hardware, all drawers with telescopic channels and all handles to be stainless steel. as per drgs per design/architect's instructions, (Includes the cost of 3/4" X 3/4" ex steam beech moulding melamine polish at bottom bands) Godrej locks & SS handles as per approved sample.					
a)	Table of size 5'-0" x 2'-3" x 2'-6" high with side credenza /table of size 3'0" x 1'-6" x 2'-4" to 2'-6".	17	no.			
b)	Table of size 6'0 x 2'9" x 2'6" high with side credenza of size 3'0" x 1'-6" x 2'-4"to 2'-6" and drawer unit of size 1'6" x 2'0" x 2'4 1/2".	4	no.			
10.3.2	<b>Manufacturing and installation of 2'-0" wide and 2'-6" high workstations with modesty panel with following specifications: Working top made out of 18 mm thick commercial ply, top and finished with 12mm thick solid arcylic top (Corian Top) (basic rate of Rs. 1100/- per sq.ft. including taxes and transportation),</b> in approved color in white color all other visible areas laminated 1 mm. in approved color and counter side in white color with 1 nos computer key board drawer , and 2 sets of pencil drawer, two sets of file drawers 1'-6" wide ,3",6"drawer etc , and 3"x 2" EUROPEAN /GERMAN STEEMED BEECH wood angular leg rest , with 1'-6" storage beneath the table facing the legs with openable shutters with sheves inside, EUROPEAN /GERMAN STEEMED BEECH 3/4"x 1/2" mouldings on margin and 1 1/2"x 1"EUROPEAN /GERMAN STEEMED BEECH. mouldingon all edges sides and at 2" high skirting level with all necessary Hettich/haffel channels, handles ,hardware as per drg.					
a)	4'-0" x 2'-0" x 2'-6" (size of each table in linear workstation )	53	no.			
b)	8'-0" x 2'-0" x 2'-6" (size of table for IT section seating )	1	no.			
<b>10.3.3 CONFERENCE TABLE</b>						



a)	P/F Conference Table as per design 22'0" Running feet and approx 5'0" wide made up of 18mm thick commercial ply with modesty panel, top side finished with 12mm thick solid acrylic top (Corian Top) with 2" high corian edges (basic rate of Rs. 1100/- per sq.ft. including taxes and transportation) in approved color. Legs & all visible areas with 1 mm laminate as per detail with pencil drawer, as per drg/detail melamine polished on legs , with 1.5"x1.5" european/german steemed beech moulding on all edges sides and at 100 mm high skirting level. All mouldings melamine polished. The contractor to use flexible ply for the curved portion and 20% on both sides of conference table to have 12mm thick solid acrylic top (Corian) and also to integrate wiring for 1DATA/1VOICE/1AUDIO/1VIDEO /1 UPSor 5 amp normal point point etc. The contractor to put CABLE CUBBY FLIP SOCKET (The cost of 3 sets of cable flip socket included with wiring )	1	no.			
<b>10.3.4 SOFA SETS</b>						
10.3.4.1	Providing and fixing fully upholstered triple seater sofa with lining with upholstery of Rs 800/- running meter, over markene ,over ½" poly foam, on 6" m.m foam, over no sag springs with necessary hard wood frame workand European/German Steemed Beech arm rests.					
a)	2 seater sofa	14	per seat			
b)	3 seater sofa	3	per seat			
<b>10.3.5 DISCUSSION TABLE (FOR TP HUB)</b>						
a)	Supply & installation of GC-960 Table of Geeken make with Chrome Plated Pipe Frame, MS Base Plate Powder Coated & Granite Top Size: 900mm (Diameter)	1	no.			
						
b)	GC-977 Chair of Geeken make with pipe Frame, Seat Back Leatherite Tapestry	4	no.			
						
<b>10.3.6 CHAIRS (Featherlite/Godrej/Durian/Geeken make)</b>						
a)	CRM & RM & CRM SECRETARIAT CABIN CHAIRS					
	ERGON MB ML 'B' of FEATHERLITE MAKE * Ergon Medium Back * Mesh Chair * Kneetilt - Multilock Mechanism * Two Way Adjustable Arms * Fine Tunning Adjustable Lumbar Support * Aluminium Back * Nylon Base	4	no.			
						
b)	CRM & RM & CRM SECRETARIAT CABIN VISITOR CHAIRS					
	ASTRO VISITOR of featherlite make * Astro Medium Back Visitor Chair * Synchro Mechanism * Two Way Adjustable Arms * Nylon Base	14	no.			
						
c)	FOR MANAGER, DYP. MANAGER, VIGILANCE OFFICER					

	<p>Click - MBGS 'B' Type Arms  Medium back chair  * Synchro Mechanism,  * Two Way Adjustable Arms  * Nylon Base</p> 	* Click	14	no.			
d)	FOR MANAGER, DYP. MANAGER, VIGILANCE OFFICER VISITORS						
	<p>Click - MBGS 'C' Type Arms  Visitor chair  * Synchro Mechanism,  * Fixed Arms  * Nylon Base</p> 	ck	28	no.			
e)	FOR A.M , A.O & CONFERENCE ROOM						
	<p>Contact Project MBGS 'B'  Contact Project Medium  * Mesh Back Chair  * Synchro Mechanism  * Adjustable Arms  * Nylon Base</p> 		96	no.			

f)	VISITOR'S LOUNGE SEATING OUTSIDE LIFT LOBBY SJ-820A-3S-BLACK PVC SEATER TANDEM WITH ARMS WITH BLACK LEATHERITE 	3	2	set		
g)	<b>HELIX CORNER TABLE (Godrej Make)</b> The Top is Made up of Toughened Glass and the leg is made up of Chrome Plated Understructure. over all size of the coner table is 550(W)x550(D)x 510(H). 		2	no.		
h)	<b>PISA CENTER TABLE (Godrej Make)</b> Supplying and placing in position center table of the following specifications. Glass shall be 12+/-0.3mm thick black tinted toughened glass UV glued with bushes made in SS 202 grade for fixing with understructure. It shall be a welded assembly made in SS202 grade having dia. 12+/-0.04 as per IS:1762. overall dimensions of table shall be Width of table= 112.0 cm, Depth=60.0 cm, height=35.1 cm.		1	no.		
<b>TOTAL OF FURNITURE WORKS CARRIED OVER TO SUMMARY</b>						
<b>II.O ELECTRICAL WORKS</b>						
1	Wiring for light point / fan point/exhaust fan/ / light socket switch with 3X1.5 (P+N+E) sqmm copper conductor FRLS insulated 1100v grade multi strand wire in concealed / surface using 20/25/32 rigid MS conduit 16swg thick with all bend, tees, saddle mounting box, cover plate ceiling rose, etc. wherever required etc. & chromium plate brass screw/rawl plug etc..The circuit wiring start from DB to point control box /switch box using 3x2.5 (P+N+E) sqmm copper conductor FRLS insulated 1100V grade multistrand wire with notification ferrules at both end complete in all respect. The conduit must be fixed with MS saddle at every 80cm on surface and conduit to be laid in ceiling with proper clamps/wall floor filling the chase with cement mortar and finish the same in original form/wooden partition above false ceiling chases filled with cement mortar as required at site Each circuit shall have separate earth wire.All switch socket must be for modular type with M.S. Boxes and plate etc. as required. Note:-.Each circuit shall have independent earth wire each point shall be earthed. Circuit wiring is to be included in wiring.					
1.1	One light controlled by one 6A modular one way switch.		5	Nos		
1.2	Two light controlled by one 6A modular one way switch.		11	Nos		
1.3	Three light controlled by one 6A modular one way switch.		15	Nos		
1.4	Four light controlled by one 6A modular one way switch.		10	Nos		
1.5	Six light controlled by one 6A modular one way switch.		8	Nos		
1.6	Eight light controlled by one 6A modular one way switch.		3	Nos		
2	Wiring for Exhaust fan point with 2.5 sq. mm. insulated copper conductor 1100 volts grade stranded flexible FRLS wires of approved make in 25 mm dia heavy duty FRLS PVC conduit including providing & fixing of 6 amps flush mounted switch at the normal switch level in 1.6 mm thick GI box and 6 amps 3 pin flush mounted socket near exhaust fan and earthing of exhaust fan through the third pin of the socket outlet and GI box with 2.5 sq.mm. PVC insulated copper conductor flexible FRLS wire.		2	Nos		
3	WIRING FOR Three nos. 6A Universal UPS power socket outlet Shuttered controlled with one no. 16A switch mounted side by side with 2 x 2.5 sq.mm. PVC insulated single core <b>FRLS flexible copper conductor in concealed/exposed RIGID PVC conduits 2mm thick and EARTHING WITH</b> one no. 1.5 sq.mm. insulated <b>green color</b> earth wire.( Max. 3 Points to be looped from one circuit). All switch socket must be for modular type with M.S. Boxes and plate etc. as required.		100	Nos		
4	<b>POWER POINTS</b>					

4.1	Wiring for 250 volts single phase and neutral 16 amps switched socket outlet with 4 sq.mm PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires in concealed or surface mounted 25 mm dia with heavy duty FRLS PVC conduit including providing and fixing of 16 amps 3 pin switched sockets of approved make and design in 1.6mm thick GI box with grid plates and earthing the third pin of each socket outlet with 4 Sq mm PVC insulated copper conductor stranded flexible FRLS wire ( Power points). Note: Circuit wiring to be included and one power point to be in one circuit.All switch socket must be for modular type with M.S. Boxes and plate etc. as required.	55	Nos			
<b>5 AC POINTS</b>						
5.1	Wiring for 250 volts single phase and neutral 20 amps switched socket outlet with 6 sq.mm PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires in concealed or surface mounted 25 mm dia with heavy duty FRLS PVC conduit including providing and fixing of 2 Nos. 20 amps each 3 pin switched sockets of approved make and design in 1.6mm thick GI box with grid plates and earthing the third pin of each socket outlet with 4 Sq mm PVC insulated copper conductor stranded flexible FRLS wire. Note: each point to be one circuit.( <b>Contractor should note and quote that that there are 2 nos 20 amp each 3 pin switch socket of modular type with MS boxes to be installed with each point )</b>	30	Nos			
<b>6.0 DISTRIBUTION BOARD</b>						
6.1	Supplying & fixing following way, three pole and neutral, sheet steel, MCB distribution board , 415 volts, on surface/recess, complete with tinned copper bus bar, neutral busbar, earth busbar, din bar, detachable gland plate, interconnections powder painted including earthing etc. (But without MCCB/RCCB/MCB)					
6.1.1	12 way ( 8 + 36) double door (for light, plug,power,AC normal DB- & Emg DB)	8	No			
6.2	Supplying and fixing of following rating four pole ( three phase and neutral) 415 volts, residual current ciecuit breaker (RCCB)having a sensitivity up to 100 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
6.2.1	63 amps	8	No			
6.3	Supplying and fixing 5 amps to 32 amps rating, 240 volts, 'B' series, miniature circuit breaker suitable for lighting and other loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
6.3.1	Single pole	120	No			
6.4	Supplying, fixing, connecting, testing and commissioning of following rating, ISI marked (IS 8828) 240 / 415 volts, 10 KA, Miniature Circuit Breaker (MCB) of single / double / three / four poles in the existing MCB DB or in existing MS enclosure complete in all respects.					
6.4.1	63 Amp. FP MCB	8	No			
<b>7 SUBMAINS/MV CABLES</b>						
7.1	<b>SUPPLY</b>					
	Supply of following sizes of FRLS 1.1 KV stranded compact circular aluminium conductor screened with extruded semi conducting compound, XLPE insulated,AI round wire armoured & overall PVC sheathed cable conforming to IS to IS 7098 (Part-I) with latest amendments					
7.1.1	3.5 x 95 sq.mm.	95	RM			
<b>8 CABLE LAYING</b>						
	Laying of one number XLPE insulated and PVC sheathed power cable of 1.1 KV grade of following sizes in open duct or on surface as required.					
8.1	Above 35 sq. mm and upto 95 sq. mm	95	RM			
<b>9 CABLE TERMINATION</b>						
9.1	Supply & making end termination with brass compression gland and aluminium lugs for following following size of PVC insulatedand PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade as required.					
9.1.1	3.5 x 95 sq.mm.	4	Nos			
<b>10 SUB MAIN WIRING</b>						
10.1	Wiring of submain wiring along with earthwith following sizes of FRLS PVC insulatd copper conductor single core cable in surface/recessed medium class PVC conduit as required					
10.1.1	4x16 sq.mm.	90	RM			
10.1.2	<b>SUPPLY AND LAYING OF CABLES</b>					
a	185 sqmm 3 1/2 core	75	RM			
b	240 sqmm 3 1/2 core	65	RM			
c	300 sqmm 3 1/2 core	90	RM			
<b>11 TELEPHONE WIRING FOR VOICE</b>						
11.1	Supply and fixing of RJ11 moduler Telephone outlet in zinc chromate passivated M.S.Box and moduler plate including connections atc. As required.	100	Nos.			

11.2	Providing, drawing, connecting and testing of <b>telephone wire</b> 0.5 sqmm tinned annealed high conductivity copper conductor with high density Polyethylene insulation, paired, polyester taped and FR PVC sheathed in existing MS/PVC conduit from telephone outlet box to the junction box/tag block as required.				
11.2.1	4 pair 0.51 sq. mm.	100	per point		
11.3	Supply & fixing the following sizes of Krone telephone tag blocks housed in suitable sizes of power coated MS boxes with hinge cover complete as required.				
11.3.1	40 pair telephone tag block	3	Nos.		
11.4	Supplying & laying the following sizes of PVC insulated or overall sheathed taped telephone cables of 0.61mm dia size inground including excavation, refilling and making good the damage etc. as required. good the same and connection etc. complete as required				
11.4.1	40 Pair telephone cable	1150	RM		
12	<b>FAN AND LIGHT FIXTURE</b>				
12.1	a) Providing and fixing in gypsum/armstrong ceiling, connecting testing and commissioning of following luminaires including the cost of necessary inter-connections required 2'X 2' Luminare all complete.in 42 W(a) Wipro Pure LED/Phillips RC 380B LED-25-6500 PSE OD WH/GE Mapple.) equivalent models in Havells	33	Nos		
12.2	Providing and fixing in gypsum ceiling, connecting testing and commissioning of following luminaires including the cost of necessary inter-connections required. Philips BBS170I x DLED-5000 PSU WH, Low depth recessed technical, downlighter inclusive of gearbox.(Luminare all complete) (Wipro Maxi iris/Green Led/Phillips BBS 170)/Equivalent model in Havells	110	Nos		
12.3	Supplying, installation, testing and commissioning of surface mounted luminaries with required wiring, suitable for LED lamp complete of make philips LL199 1xDLED40-5000 PSE ODWH or equivalent make in wipro/havells/syska.				
	PHILIPS LL199 1xDLED40-5000 PSE ODWH	25	No.		
12.4	P/F of following Main Stream Battsens (Phillips make including lamps)				
12.4.1	MIROLTA Slim (Phillips) T5 TMS540 HF. For Lamp - 1xTLS-28W	10	Nos		
12.5	P/F Philips Linea Flexible LED Strip / Tape 30W 5m 4500K (With Driver) Tech Overview Length: 5m Voltage: 12V Wattage: 30W Colour Temperature: 4500K Lumen output: 360 lm/m Colour Rendering Index (CRI): 75 Beam Angle: 120 degrees Design and finishing • Material: Synthetics • Colour: White Technical specifications • Mains power: Range 220 V - 240 V • IP code: IP20, protection against objects bigger than 12.5 mm, no protection against water • Class of protection: II - double insulated	10	mtrs.		
12.6	Supplying, installing, testing and commissioning of <b>wall bracket fan</b> of 400 mm, complete with moulded propeller type blades, and accessories suitable for operation on 230 / 240 Volts, 50 Hz, single phase, A.C. supply.	35	Nos		
12.7	Providing & fixing BELL POINTS on wall /Partition with 2x1.0 sqmm copper conductor in PVC medium gauge conduit(IS:9537) with call bell switch(Push Type) including call bell Multi Tune Bell etc. complete in DGM Cabin	8	Each		
13	<b>DATA CABLING</b>				
13.1	Supply & fixing the following size of PVC conduit in Floor/Surface of wall, including cutting the Floor/Wall and make the good the same as required (Data Cabling per lan point )	100	no.		
13.2	Supply & fixing flush steel box for computer data outlet dully recessed in wall complete with modular cover plate, computer outlet RJ-45 including connections etc. required.	100	Nos		
13.3	Supply and drawing of cat 6 Data cable in existing conduit complete as required per lan point .	100	no.		
14	<b>FIRE ALARM</b>				

14.1	Supply, installation, testing and commissioning of Analogue addressable intelligent, automatic adaptable to varying environmental conditions, <b>Optical type smoke detectors</b> , with decentralise intelligence, with soft addressing, mounting base, inbuilt fault isolator complete as required. (Make : Esser (Honeywell), Fire Finder (Seimens), Simplex (Tyco))	40	No.			
14.2	SITC of Fault isolation module to electrically isolate different sections of detector loops.	5	No.			
14.3	SITC of Addressable type manual fire alarm boxes(Pull Station ) shall, on command from the control panel, send data to the panel representing the state of the manual switch and the addressable communication module status. They shall use a key operated test-reset lock, and shall be designed so that after actual emergency operation, they cannot be restored to normal use except by the use of a key.Manual fire alarm boxes shall be constructed of Lexan with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in raised letters, 1.75 inches (44 mm) or larger. etc. as required. (1 no. panel with 4 zone segregation with battery )	1	No.			
14.4	SITC of Hooter suitable for addressable type fire alarm system with storb light with minimum 85 db audible etc. as required.	2	No.			
14.5	Supplying, receiving, storing, handling, fixing, drawing wiring for fire alarm system wiring using ISI marked (IS 694) 1100 Volts grade, PVC insulated, flexible, flame retardant low smoke (FRLS) <b>copper conductor wire</b> , drawn in solid / flexible conduits / casing capping including the cost of conduits connections to the detectors, manual call points , hooters, response indicators, accessories, fire alarm control panel etc. including termination with bottle type copper lugs as required to complete the system. (Make fire alarm wiring : FINOLEX / RR / RPG / Polycab / Rallison / Bonton). <b>2 x 1.5 sq mm</b>	40	No.			
14.6	Providing & Refixing of sprinkler head ( existing at site) with required extra arm from existing ceiling /wall to under the new ceiling at lowered height /wall lining					
14.6.1	with 700 mm flexible extension nozzle	80	No.			
14.7	Providing,fixing,testing and commissioning of <b>response indicators</b> with dual LED suitable for operation on 12/24 volts D.C., sheet steel / Polymer housing suitable for surface / recess / false ceiling mounting including making connections with wires complete in all respects. (Make : Agni Suraksha (ASES), Safeway, Honeywell)	40	No.			
14.8	SITC of Auto dialer system with fire alarm including all necessary connections as required.	2	No.			
14.9	Supply, installation, testing and commissioning of Wall / ceiling mounted <b>15 watt horn speaker</b> with 2 tapping complete as required with necessary connections.	22	No.			
15	<b>EARTHING</b>					
15.1	Supply and fixing of 32mm x 6mm thick copper strip insulated with PVC sleeve from existing earthing pit to proposed Distribution Boxes on 9th and 10th floor (one for body and one for complete wiring) from earth electrode including connection etc as required.	130	RM			
16	<b>RACEWAY: including cutting of the floor and fixing as and wherever required.</b>					
16.1	Supply, fixing, laying, hanging and embedding in wall of MS powder coated raceway top cover openable with counter sunk screws, painted stove enamelled approved colour the cover should be tight on channel with counter sunk screws to avoid entry of vermins. It should be tightened in such a way to avoid ingress of mosquito, moisture and dust. The MS Powder coated raceway / wire ways shall be complete with all accessories required such as bends, tees, reducers, offsets, cover, junction boxes etc. as reqd.					
16.1.1	Supply, laying, testing and commissioning of 100 MM wide x 2mm raceway with all requirements.	65	RM			
16.1.2	Supply, laying, testing and commissioning of 150 MM wide x 2mm raceway with all requirements.	55	RM			
16.1.3	Supply, laying, testing and commissioning of 300 MM wide x 2mm raceway with all requirements.					
17	<b>Finger Print Biometric SYSTEM -HONEYWELL.</b>					
17.1	providing, supplying & Wiring 12 core Coaxial cable for fingerprint bio matrix system provided by OIC including complete installation and accessories required upto complete satisfaction of the architect/client.	3	no.			
18	<b>SERVER ( providing fixing and commissioning )</b>					
18.1	24 Port Cat 6, Patch Panel ( make delink) for Data	2	no.			

<b>19</b>	<b>TELEVISION CABLE</b>				
<b>19.1</b>	Providing, drawing, connecting and testing of <b>Television cable</b> , Electrolytic grade solid annealed high conductivity copper conductor, gas injected physical polyethylene foam insulated, wrapped with aluminium tape and aluminium alloy wire braided, jelly flooded and PVC jacketing in black colour (Compatible to DTH TV signal), in existing MS/PVC conduit from television outlet box to the junction box / splitter / subscriber or dwelling unit / Dish antenna as required. (Make : Finolex / RR / Polycab / Skytone)				
<b>19.1.1</b>	RG - 6	250	rmt.		
	<b>TOTAL OF ECTRICAL/LIGHTNING/DATA/TELEPHONE CABLING/FIRE ALARM/RACEWAY etc.</b>				
<b>III.O</b>	<b>HVAC WORKS</b>				
<b>1</b>	<b>OUTDOOR UNIT</b>				
	Supply, Installation, Testing, Commissioning of Outdoor condensing unit comprising of scroll type inverter multi compressor's , Heat Exchanger, propeller / axial fans, refrigerant Circuit, Safety Devices & Oil Recovery System and in built starter. The starter unit shall be operated both from local and remote Necessary Refrigerant Gas and oil charge.Compressor shall be equipped with inverter controller to be efficient & quiet. The outdoor unit shall have the multi-step of capacity control to meet load fluctuation and indoor unit individual control. Heat Exchanger shall be constructed with copper tubes mechanically bonded to aluminium fins to form a cross fin coil. Refrigerant should be R410A MAKE : TOSHIBA / MITSUBISH				
<b>1.1</b>	<b>36 HP</b>	2	Nos.		
<b>2</b>	<b>INDOOR UNIT</b>				
	Supply, Installation,Testing & Commissioning of following capacity modulating type 4 way cassette VRV system Indoor unit along with cordedless remote, necessary supports, nuts & bolts etc complete.				
	4-Way Cassette Type Units :				
<b>2.1</b>	Cassette Type : 0.8 TR	6	Nos.		
<b>2.2</b>	Cassette Type : 1.3 TR	2	Nos.		
<b>2.3</b>	Cassette Type : 2.0 TR	3	Nos.		
<b>2.4</b>	Cassette Type : 3.2 TR	18	Nos.		
<b>2.5</b>	Cordless Remotes	29	Nos.		
<b>3</b>	<b>CENTRAL REMOTE CONTROLLER :</b>				
<b>3.1</b>	Central Remote Control	1	Nos.		
<b>4</b>	<b>Y' JOINTS</b>				
<b>4.1</b>	Supply, Installation, Testing & Commissioning of Y-joints .	27	Nos.		
<b>5</b>	<b>COPPER PIPE</b>				
	Supply, installation, testing & commissioning <b>refrigerant liquid line and suction line (duly insulated )</b> piping with nitrile foam insulation of 13mm up to 25mm & 19mm for above size.				
<b>5.1</b>	06.35 mm	15	Rmt.		
<b>5.2</b>	09.52 mm	90	Rmt.		
<b>5.3</b>	12.70 mm	12	Rmt.		
<b>5.4</b>	15.88 mm	40	Rmt.		
<b>5.5</b>	19.05 mm	100	Rmt.		
<b>5.6</b>	22.22 mm	80	Rmt.		
<b>5.7</b>	28.58 mm	42	Rmt.		
<b>5.8</b>	34.92 mm	5	Rmt.		
<b>5.9</b>	41.30 mm	30	Rmt.		
<b>6</b>	<b>TRANSMISSION CABLE</b>				
	Supply, installation, testing & commissioning of <b>transmission cabling</b> between indoor & outdoor in PVC Conduit				
<b>6.1</b>	2 C * 1.5 sq.mm Cable	275	Rmt.		
<b>7</b>	<b>POWER CABLE</b>				
	Supply of Electrical Power cable between the indoor unit and power socket with unshielded copper cable, with 1 no. plug top for each IDU.				
<b>7.1</b>	3 Core, 2.5 sqmm Cable	30	Rmt.		
<b>7.2</b>	4 Core, 16 sq mm cable	50	Rmt.		
<b>8</b>	<b>DRAIN PIPING</b>				
	Supply, installation, testing & Commissioning of following sizes insulated PVC drain pipes.				
<b>8.1</b>	25mm	R.O	Rmt.		
<b>8.2</b>	32mm	80	Rmt.		
<b>8.3</b>	40mm	30	Rmt.		
<b>9</b>	<b>LIFTING &amp; SHIFTING</b>				
<b>9.1</b>	Lifting, shifting of units to terrace & locations	1	lot		

<b>10</b>	<b>CABLE TRAY</b>				
	Supply & Installation of Covered M.S. Slotted Tray for expose copper piping				
	300mm W x 50mm H X 2mm (With Cover)	<b>190</b>	<b>Rmt</b>		
<b>11</b>	<b>ISOLATOR SWITCH FOR VRV OUTDOOR UNIT</b>				
	Supply, Installation, Testing & Commissioning of isolator switch for Outdoor Unit with sheet metal enclosure, rain protection etc. as required to suit the site condition.	<b>4</b>	<b>Nos.</b>		
	<b>TOTAL OF HVAC WORKS</b>				
<b>TOTAL ABSTRACT OF WORKS</b>					
<b>S.No.</b>	<b>Item Discription</b>	<b>Amount (in Rs.)</b>			
<b>1</b>	<b>INTERIOR WORKS</b>				
<b>2</b>	<b>FLOORING WORK</b>				
<b>3</b>	<b>MISCELLANEOUS WORKS</b>				
<b>4</b>	<b>CIVIL WORKS</b>				
<b>5</b>	<b>COMPACTORS WORKS</b>				
<b>6</b>	<b>FURNITURE WORKS</b>				
<b>7</b>	<b>ELECTRICAL/DATA/TELEPHONE CABLING/FIRE ALARM</b>				
<b>8</b>	<b>HVAC WORKS</b>				
	<b>TOTAL PROJECT COST</b>				
	<b>Less Discount (if any)</b>				
	<b>Total Amount after discount (if any)</b>				